

VOLVO EXCAVATOR

EC235C_{NL}

23,6 – 25,0 t, 154 metric hp



MORE CARE. BUILT IN.



IN COMMAND - IN DEMANDING WORK.

MORE SAFETY.

- **New-design Volvo Care Cab**, with operator protective structure provides security.
- **Anti-slip, punched steel steps/platforms:** superior grip and safety.

MORE PERFORMANCE.

- **Powerful Stage IIIA Volvo engine:** performance, durability and industry-leading fuel efficiency.
- **Heavier counterweight for high stability -** along with the equal lift capacity of a comparable, conventional machine.
- **Optimum tractive force, lifting capability and ground clearance.**





MORE COMFORT.

- **New larger, more comfortable cab** – puts you in command with ergonomic controls.
- **The highest-capacity climate control system available.**
- **Roomy, adjustable seat** supports your whole body.
- **Vibration dampening** protects against whole body fatigue for all-day production.

MORE UPTIME.

- **In-cab monitoring** through the easy-to-read, **color LCD monitor.**
- **Large service openings** for easy access/inspection.
- **Easy access, centralized lubrication points.**

MORE DURABILITY.

- **Purpose-built for tough applications:** rocky mountain terrain, quarries, heavy construction and demolition.
- **Forged steel top rollers and strengthened track guard** keeps you working.
- **Strengthened, reinforced undercarriage frame** endures daily abuse.
- **Lifetime greased, sealed track link** prevents leaks and guarantees long life.

BUILT TOUGH. TO HANDLE THE ELEMENTS.

When the conditions you operate in are rocky and mountainous, you need an excavator purpose-built to keep working. The Volvo EC235CNL is built with more toughness and durability than conventional 21-ton excavators. And with legendary Volvo quality and an undercarriage/lower component that rivals those found in the 29-ton class, the Volvo EC235CNL will help you handle the elements with ease.

Ready for your application

- Heavy-duty durability for demanding terrain – from rocks to riverbeds and from construction to demolition sites.
- Heavier 5 ton counterweight for stability and to meet greater lifting capacity demands.
- Increased tractive force.
- Meets strict European road transport width regulations.

Quality through and through

- Reinforced superstructure with double-welded corners and load-bearing boom frame.
- Reinforced boom/arm and proven components deliver every time.
- Built for the long haul with lower costs and high resale value.
- Performance and durability, along with industry-leading fuel efficiency and low noise/emissions.

Proven endurance

- Proven, long life booms and arms.
- Designed, purpose-built and tested to deliver strength and day after day endurance.
- Count on it to help your business grow with the peace-of-mind and confidence to get the job done, make money and move on to the next job.

In command of precision control

- Excellent maneuverability and steering for mountainous terrain.
- The perfect combination of digging force and fine control to suit demanding applications.
- Volvo-matched hydraulics deliver optimum productivity, command and less operator fatigue.
- Volvo Care Cab comfort you expect.





• More care built in through durability.



• Narrow undercarriage for work access.



• Purpose-built for rocky terrain.

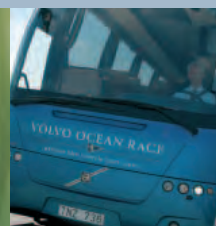
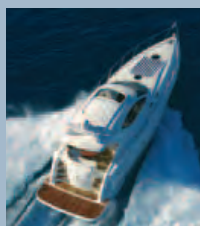


VOLVO'S ENGINE LEADERSHIP SPANS LAND, SEA, SKY AND SPACE

As the world's second largest manufacturer of 9-to-18-liter diesel engines, Volvo has unmatched expertise designing power systems that move the world. Volvo engines for Volvo Construction Equipment, Volvo

Aero, Volvo Buses, Volvo Penta and Volvo Trucks define productivity and fuel economy. Our performance has been honed on land, over the sea, across the sky and into space. Leading research and development

keeps all Volvo Group products at the forefront of productivity. So when we say Volvo engines are tested — and proven — you can believe it. Trust in it. It's the real advantage of Volvo Power.



SPECIFICATIONS

Engine

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

Engine	Volvo D6E EAE3
Max. power, at	30 r/s (1 800 rpm)
Net (ISO 9249, SAE J1349)	113 kW (154 metric hp)
Gross (SAE J1995)	126 kW (171 metric hp)
Max. torque at 1 350 rpm	730 Nm
No. of cylinders	6
Displacement	5,7 l
Bore	98 mm
Stroke	126 mm

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	24 V
Batteries	2 x 12 V
Battery capacity	150 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	335 l
Hydraulic system, total	330 l
Hydraulic tank	160 l
Engine oil	25 l
Engine coolant	32 l
Swing reduction unit	6 l
Travel reduction unit	2 x 6,2 l

Swing system

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

Max. swing speed	11,6 rpm
Max. swing torque	76,6 kNm

Drive

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

Max. drawbar pull	214 kN
Max. travel speed	2,8/4,5 km/h
Gradeability	35° / 70%

Undercarriage

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

Track pads	2 x 45
Link pitch	203,2 mm
Shoe width, triple grouser	500/600/700 mm
Bottom rollers	2 x 7
Top rollers	2 x 2

Hydraulic system

The hydraulic system, also known as the "Integrated work mode control" 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.

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.

Main pump:
Type: 2 x variable displacement axial piston pumps
Maximum flow: 2 x 200 l/min

Pilot pump:
Type: Gear pump
Maximum flow: 1 x 18 l/min

Hydraulic motors:
Travel: Variable displacement axial piston motor with mechanical brake
Swing: Fixed displacement piston motor with mechanical brake

Relief valve setting:

Implement	32,4/34,3 MPa
Travel circuit	34,3 MPa
Swing circuit	27,9 MPa
Pilot circuit	3,9 MPa

Hydraulic cylinders:

Mono boom	2
Bore x Stroke	ø125 x 1 235 mm
1st Boom of 2-piece boom	2
Bore x Stroke	ø125 x 1 235 mm
2nd Boom of 2-piece boom	2
Bore x Stroke	ø160 x 1 070 mm
Arm	1
Bore x Stroke	ø135 x 1 540 mm
Bucket	1
Bore x Stroke	ø120 x 1 065 mm
Bucket (ME)	1
Bore x Stroke	ø130 x 1 040 mm

Cab

Standard Care Cab with large and roomy interior, more leg room and foot space. Audio system with remote control. Cup holders, high-capacity outlets. Independently adjustable joystick consoles.

Excellent all around-visibility provided through maximum cab glass, transparent roof hatch and 2-piece sliding door window.

The lift-up front windshield can easily be secured at the ceiling and the removable lower front glass can be stored in the door. Interior lighting consists of one reading light and one cab light.

The pressurized and filtered cab air is supplied by a 14-vent climate-control system, providing fast defrosting and high cooling and heating performance. Viscous/spring-mounted suspension cushions operator from vibrations.

Deluxe seat with adjustable height, tilt, recline, forward-back settings, retractable seat belt and selectable horizontal suspension for reduced whole body vibration.

Adjustable easy-to-read 16,3 cm (6,4") LCD color monitor provides real time information of machine functions, important diagnostic information and a wide variety of work tool settings. LCD monitor is switchable to rear-view camera monitor (option).

Sound Level:

Sound level in cab according to ISO 6396
..... LpA 70 dB(A)

External sound level according to ISO 6395 and EU Directive 2000/14/EC
..... LwA 102 dB(A)

Ground pressure

- **EC235C NL** with 5,7 m boom, 2,9 m arm, 920 l (776 kg) bucket, 5 000 kg counterweight

Description	Shoe width	Operating weight up to	Ground pressure	Overall width
Triple grouser	500 mm	23 650 kg	60,8 kPa	2 540 mm
	600 mm	23 730 kg	51,0 kPa	2 640 mm
	700 mm	24 230 kg	44,1 kPa	2 740 mm

- **EC235C NL** with 5,57 m 2-piece boom, 2,9 m arm, 920 l (776 kg) bucket, 5 000 kg counterweight

Description	Shoe width	Operating weight up to	Ground pressure	Overall width
Triple grouser	500 mm	24 210 kg	61,8 kPa	2 540 mm
	600 mm	24 440 kg	52,0 kPa	2 640 mm
	700 mm	24 950 kg	46,1 kPa	2 740 mm

Max. permitted buckets

- Note: 1. Bucket size based on ISO 7451, heaped material with a 1:1 angle of repose.
 2. "Max. permitted sizes" are for reference only and are not necessarily available from the factory.
 3. Bucket widths are less than bucket's tip radius.

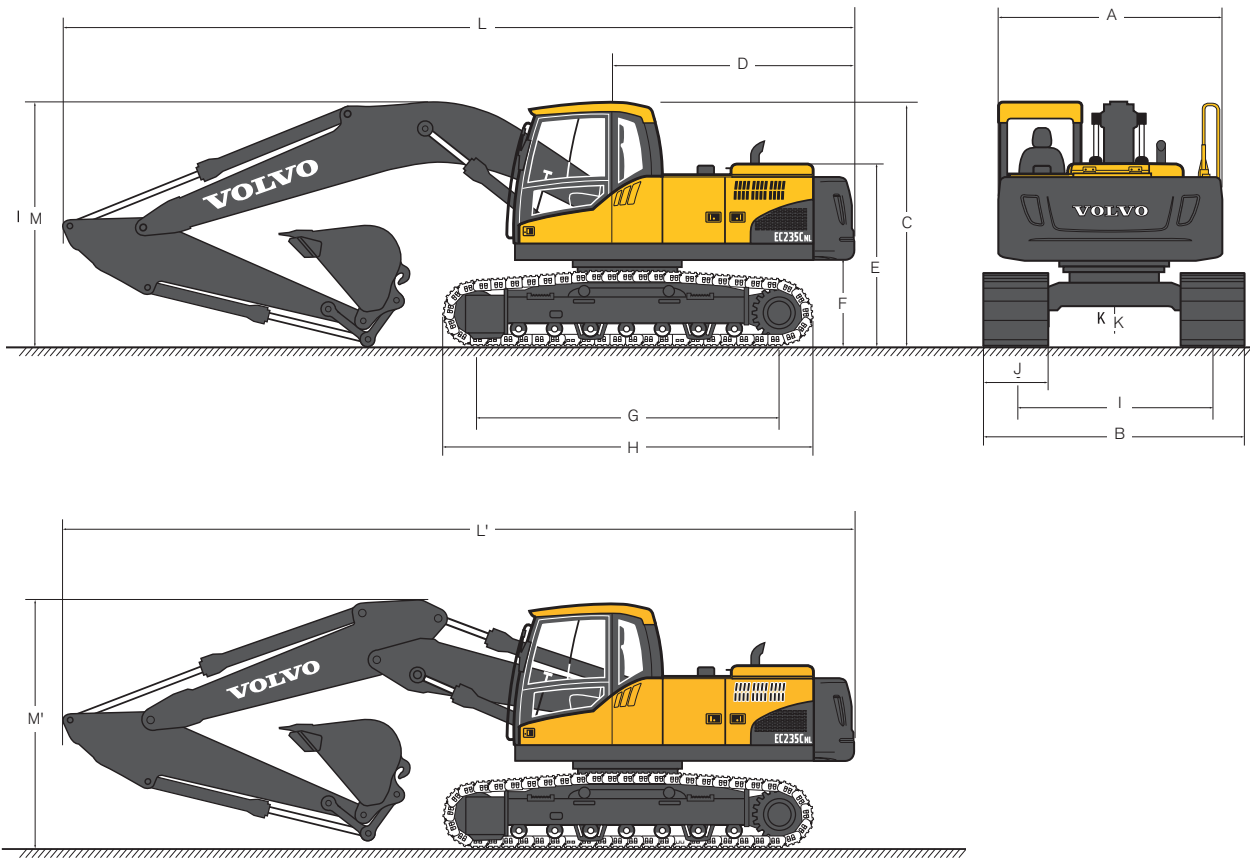
- **Max permitted sizes for direct fit buckets:**

Description	Max. bucket volume / weight	5,7 m boom			5,57 m 2-piece boom		
		2,0 m arm	2,5 m arm	2,9 m arm	2,0 m arm	2,5 m arm	2,9 m arm
GP bucket 1,5 t/m ³	l / kg	1 400 / 1 150	1 275 / 1 050	1 175 / 1 000	1 425 / 1 200	1 300 / 1 100	1 200 / 1 000
GP bucket 1,8 t/m ³	l / kg	1 225 / 1 050	1 125 / 950	1 050 / 850	1 250 / 1 050	1 150 / 950	1 075 / 900
HD bucket 1,8 t/m ³	l / kg	1 175 / 1 150	1 050 / 1 050	1 000 / 1 000	1 175 / 1 150	1 100 / 1 100	1 000 / 1 000
HD bucket 2,0 t/m ³	l / kg	1 100 / 1 100	1 000 / 1 000	925 / 900	1 100 / 1 100	1 025 / 1 000	950 / 950

- **Max permitted sizes for quick fit buckets:**

Description	Max. bucket volume / weight	5,7 m boom			5,57 m 2-piece boom		
		2,0 m arm	2,5 m arm	2,9 m arm	2,0 m arm	2,5 m arm	2,9 m arm
GP bucket 1,5 t/m ³	l / kg	1 300 / 1 100	1 175 / 1 000	1 100 / 900	1 325 / 1 100	1 225 / 1 000	1 100 / 950
GP bucket 1,8 t/m ³	l / kg	1 150 / 950	1 050 / 850	975 / 800	1 175 / 1 000	1 075 / 900	975 / 800
HD bucket 1,8 t/m ³	l / kg	1 100 / 1 100	975 / 950	925 / 900	1 100 / 1 100	1 025 / 1 000	925 / 900
HD bucket 2,0 t/m ³	l / kg	1 025 / 1 000	925 / 900	850 / 850	1 025 / 1 000	950 / 950	875 / 850

Dimensions

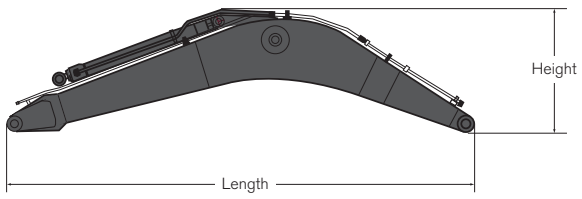


• EC235C NL

Description		5,7 m boom			
		2,0 m arm	2,5 m arm	2,9 m arm	3,5 m arm
A. Overall width of upper structure	mm	2 540	2 540	2 540	2 540
B. Overall width	mm	2 540	2 540	2 540	2 540
C. Overall height of cab	mm	3 000	3 000	3 000	3 000
D. Tail swing radius	mm	2 850	2 850	2 850	2 850
E. Overall height of engine hood	mm	2 250	2 250	2 250	2 250
F. Counterweight clearance *	mm	1 095	1 095	1 095	1 095
G. Tumbler length	mm	3 510	3 510	3 510	3 510
H. Track length	mm	4 360	4 360	4 360	4 360
I. Track gauge	mm	2 040	2 040	2 040	2 040
J. Shoe width	mm	500	500	500	500
K. Min. ground clearance *	mm	480	480	480	480
L. Overall length	mm	9 780	9 730	9 660	9 715
L'. Overall length	mm	9 645	9 600	9 550	–
M. Overall height of boom	mm	3 200	3 170	3 000	3 345
M'. Overall height of boom	mm	3 070	3 090	2 970	–

* Without shoe grouser

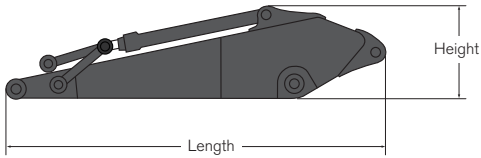
• **Boom**



Description		5,7 m	5,57 m 2-piece
Length	mm	5 910	5 780
Height	mm	1 585	1 570
Width	mm	670	670
Weight	kg	1 785	2 240

* Includes cylinder, piping and pin

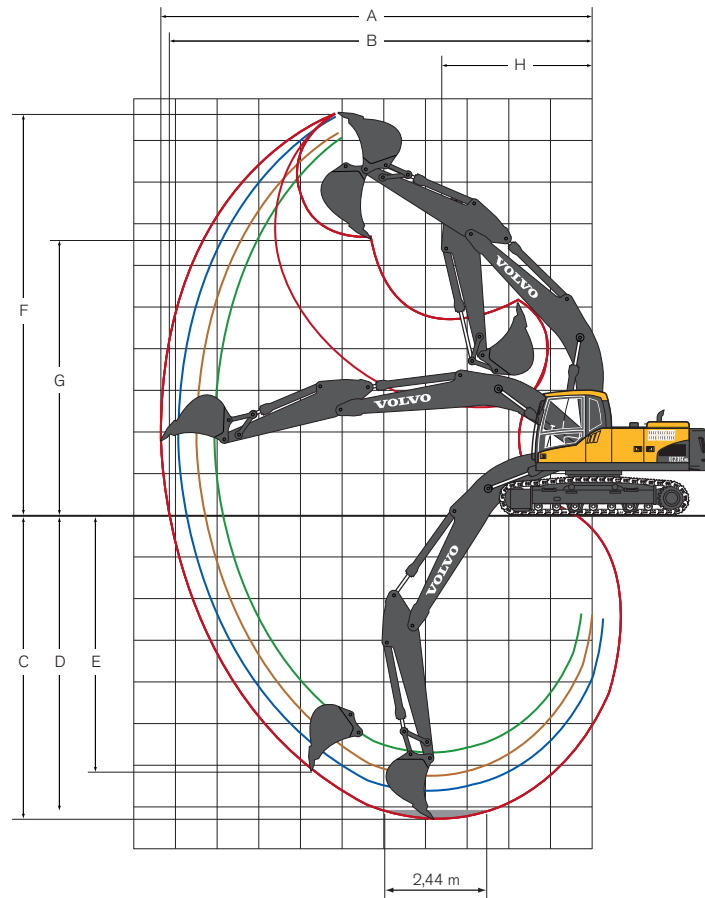
• **Arm**



Description		2,0 m	2,5 m	2,9 m	3,5 m
Length	mm	3 065	3 525	3 910	4 540
Height	mm	980	860	860	855
Width	mm	440	440	440	440
Weight	kg	970	975	1 000	1 110

* Includes cylinder, linkage and pin

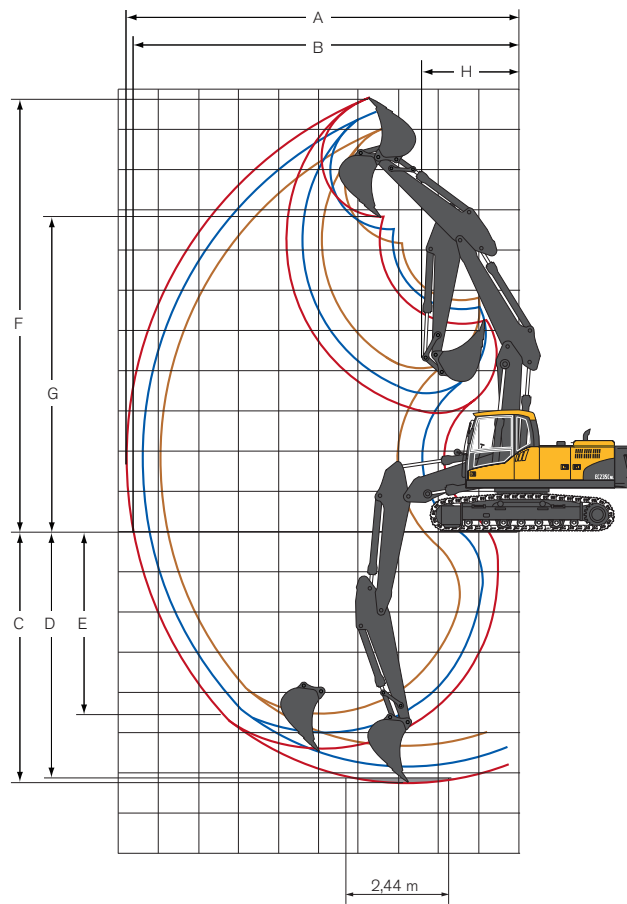
Working ranges & digging force



Machine with direct fit bucket	Unit	5,7 m boom			
		2,0 m arm	2,5 m arm	2,9 m arm	3,5 m arm
A. Max. digging reach	mm	9 090	9 540	9 940	10 395
B. Max. digging reach on ground	mm	8 910	9 350	9 750	10 240
C. Max. digging depth	mm	5 755	6 255	6 655	7 255
D. Max. digging depth (2,44 m level)	mm	5 495	6 030	6 440	7 060
E. Max. vertical wall digging depth	mm	4 560	5 450	5 935	6 310
F. Max. cutting height	mm	9 010	9 290	9 530	9 535
G. Max. dumping height	mm	6 260	6 500	6 725	6 770
H. Min. front swing radius	mm	3 800	3 670	3 650	3 635

Digging forces with direct fit bucket		Unit	5,7 m boom			
			2,0 m arm	2,5 m arm	2,9 m arm	3,5 m arm
Bucket radius		mm	1 470	1 470	1 470	1 470
Breakout force - bucket (Normal/Power boost)	SAE J1179	kN	137,0 / 150,0	122,6 / 130,4	122,6 / 130,4	122,6 / 130,4
	ISO 6015	kN	152,0 / 167,0	136,3 / 147,1	136,3 / 147,1	136,3 / 147,1
Tearout force - arm (Normal/Power boost)	SAE J1179	kN	134,0 / 146,0	110,4 / 117,2	95,6 / 103,0	88,0 / 93,0
	ISO 6015	kN	138,0 / 150,0	113,7 / 120,7	98,2 / 104,9	89,0 / 95,0
Rotation angle, bucket		deg.	175	175	175	175

Working ranges & digging force



Machine with direct fit bucket	Unit	5,57 m 2-piece boom		
		2,0 m arm	2,5 m arm	2,9 m arm
A. Max. digging reach	mm	8 985	9 450	9 840
B. Max. digging reach on ground	mm	8 790	9 265	9 660
C. Max. digging depth	mm	5 335	5 830	6 230
D. Max. digging depth (2,44 m level)	mm	5 215	5 720	6 125
E. Max. vertical wall digging depth	mm	3 755	4 230	4 565
F. Max. cutting height	mm	10 080	10 460	10 780
G. Max. dumping height	mm	7 175	7 535	7 850
H. Min. front swing radius	mm	2 890	2 730	2 470
















Digging forces with direct fit bucket		Unit	5,57 m 2-piece boom		
			2,0 m arm	2,5 m arm	2,9 m arm
Bucket radius		mm	1 470	1 470	1 470
Breakout force - bucket (Normal/Power boost)	SAE J1179	kN	137,0 / 150,0	122,6 / 130,4	122,6 / 130,4
	ISO 6015	kN	152,0 / 167,0	136,3 / 147,1	136,3 / 147,1
Tearout force - arm (Normal/Power boost)	SAE J1179	kN	134,0 / 146,0	110,4 / 117,2	95,6 / 103,0
	ISO 6015	kN	138,0 / 150,0	113,7 / 120,7	98,2 / 104,9
Rotation angle, bucket		deg.	175	175	175

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 fit from the following values.

• EC235C NL

 Across undercarriage  Along undercarriage	Lifting hook related to ground level	1,5 m		3,0 m		4,5 m		6,0 m		7,5 m		Max. reach				
															Max. mm	
Boom 5,7 m + Arm 2,0 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg													*5 970	*5 970	4 900
	6 m kg							*5 730	5 110					*5 770	4 750	6 200
	4,5 m kg						*7 240	*7 240	*6 080	4 980				*5 800	3 870	7 000
	3 m kg						*9 070	7 050	*6 830	4 760				5 860	3 470	7 400
	1,5 m kg								*7 550	4 560	5 760	3 380		5 670	3 330	7 500
	0 m kg								*10 860	6 530	7 830	4 450		5 850	3 410	7 300
	-1,5 m kg								*10 500	6 550	7 820	4 440		6 530	3 780	6 800
	-3 m kg				*12 530	12 520	*9 320	6 680							*6 950	4 720
-4,5 m kg																
Boom 5,7 m + Arm 2,5 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg													*5 340	*5 340	5 500
	6 m kg							*5 170	*5 170					*5 260	4 200	6 800
	4,5 m kg						*6 560	*6 560	*5 650	5 040	*5 330	3 560		*5 340	3 510	7 500
	3 m kg						*8 410	7 200	*6 460	4 810	*5 610	3 480		5 370	3 180	7 900
	1,5 m kg						*10 030	6 740	*7 290	4 590	5 760	3 380		5 200	3 050	8 000
	0 m kg						*10 770	6 530	7 830	4 440	5 680	3 300		5 340	3 110	7 800
	-1,5 m kg				*9 970	*9 970	*10 690	6 500	7 770	4 390				5 850	3 400	7 300
	-3 m kg				*13 730	12 340	*9 840	6 590	*7 250	4 460				*6 560	4 090	6 400
-4,5 m kg				*10 600	*10 600	*7 560	6 860						*6 690	6 050	4 900	
Boom 5,7 m + Arm 2,9 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg							*4 900	*4 900					*4 460	*4 460	6 100
	6 m kg							*4 790	*4 790					*4 150	3 850	7 200
	4,5 m kg							*5 320	5 120	*5 030	3 630			*4 100	3 270	7 900
	3 m kg						*7 890	7 350	*6 180	4 880	*5 390	3 530		*4 210	2 990	8 300
	1,5 m kg						*9 660	6 850	*7 070	4 640	5 800	3 410		*4 490	2 880	8 400
	0 m kg				*5 060	*5 060	*10 650	6 580	*7 730	4 470	5 700	3 320		4 990	2 920	8 200
	-1,5 m kg	*5 700	*5 700	*9 490	*9 490	*10 800	6 500	7 780	4 400	5 660	3 290			5 410	3 150	7 700
	-3 m kg	*10 370	*10 370	*14 570	12 240	*10 190	6 560	*7 540	4 430					*6 240	3 700	6 900
-4,5 m kg				*11 850	*11 850	*8 420	6 760						*6 480	5 100	5 500	
Boom 5,7 m + Arm 3,5 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg													*3 620	*3 620	6 800
	6 m kg										*4 390	3 770		*3 410	*3 410	7 900
	4,5 m kg							*4 770	*4 770	*4 580	3 700			*3 370	2 960	8 500
	3 m kg				*10 540	*10 540	*6 990	*6 990	*5 660	4 960	*5 010	3 570		*3 450	2 720	8 900
	1,5 m kg						*8 900	6 920	*6 630	4 670	*5 530	3 420		*3 650	2 620	8 900
	0 m kg				*6 100	*6 100	*10 190	6 530	*7 410	4 450	5 680	3 300		*4 000	2 640	8 800
	-1,5 m kg	*5 320	*5 320	*9 000	*9 000	*10 670	6 370	7 710	4 330	5 610	3 230			*4 630	2 810	8 300
	-3 m kg	*8 840	*8 840	*13 410	11 850	*10 400	6 380	7 700	4 320	5 640	3 260			5 550	3 210	7 500
-4,5 m kg	*13 390	*13 390	*13 180	12 170	*9 210	6 540	*6 680	4 450	-	-			*6 080	4 130	6 300	















- 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

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 fit from the following values.

• EC235C NL

 Across undercarriage  Along undercarriage	Lifting hook related to ground level	1,5 m		3,0 m		4,5 m		6,0 m		7,5 m		Max. reach		
														Max. mm
Boom 5,57 m 2-piece + Arm 2,0 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg					*8 130	8 050					*8 030	7 370	4 700
	6 m kg					*8 110	8 000	*7 060	5 040			*7 010	4 830	6 100
	4,5 m kg					*9 020	7 580	*7 240	4 930			*6 590	3 890	6 900
	3 m kg					*10 230	6 990	*7 660	4 690			5 950	3 460	7 300
	1,5 m kg							*7 910	4 480			5 750	3 320	7 400
	0 m kg					*10 210	6 400	*7 680	4 360			5 940	3 400	7 200
	-1,5 m kg					*8 790	6 420	*6 680	4 350			*5 560	3 790	6 700
	-3 m kg					*6 280	*6 280					*4 860	*4 860	5 500
-4,5 m kg														
Boom 5,57 m 2-piece + Arm 2,5 m + Shoe 500 mm + Counterweight 5 000 kg	7,5 m kg					*7 390	*7 390					*6 160	5 980	5 400
	6 m kg					*7 530	*7 530	*6 610	5 150			*5 640	4 250	6 700
	4,5 m kg			*11 910	*11 910	*8 480	7 750	*6 910	5 000			*5 540	3 520	7 400
	3 m kg					*9 810	7 150	*7 430	4 750	5 840	3 410	5 430	3 160	7 800
	1,5 m kg					*10 660	6 640	*7 820	4 510	5 730	3 300	5 260	3 040	7 900
	0 m kg					*10 500	6 400	*7 780	4 350	5 650	3 230	5 400	3 100	7 700
	-1,5 m kg			*10 580	*10 580	*9 410	6 370	*7 090	4 300			*5 340	3 400	7 200
	-3 m kg					*7 300	6 490	*5 260	4 400			*4 690	4 140	6 300
-4,5 m kg														
Boom 5,57 m 2-piece + Arm 2,9 m + Shoe 500 mm + Counterweight 5 000 kg	9 m kg											*5 560	*5 560	4 000
	7,5 m kg					*6 370	*6 370	*4 540	*4 540			*4 480	*4 480	6 000
	6 m kg					*6 430	*6 430	*6 300	5 260			*4 130	3 880	7 100
	4,5 m kg			*8 260	*8 260	*8 050	7 920	*6 670	5 090	*5 620	3 570	*4 040	3 270	7 800
	3 m kg					*9 450	7 320	*7 250	4 830	5 900	3 460	*4 130	2 970	8 200
	1,5 m kg					*10 530	6 760	*7 740	4 570	5 760	3 340	*4 390	2 850	8 300
	0 m kg			*5 540	*5 540	*10 660	6 450	7 820	4 380	5 660	3 240	*4 870	2 900	8 100
	-1,5 m kg			*9 990	*9 990	*9 830	6 370	*7 350	4 310	*5 400	3 220	*5 150	3 140	7 600
-3 m kg			*10 260	*10 260	*8 030	6 440	*5 940	4 350			*4 670	3 730	6 800	

- 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.

STANDARD EQUIPMENT

Engine

Turbocharged, 4-stroke diesel engine with water cooling, direct injection and charged air cooler that meets EU Stage IIIA requirements
Air filter with indicator and pre-cleaner
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

Electric/Electronic control system

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
Overload warning device
Engine restart prevention circuit
High-capacity halogen lights:
– Frame-mounted 2
– Boom-mounted 1
Batteries, 2 x 12 V / 150 Ah
Start motor, 24 V / 4,8 kW

Hydraulic system

Hose rupture valve: boom
Automatic sensing hydraulic system:
– Summation system
– Boom priority
– Arm priority
– Swing priority
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

Superstructure

Access way with handrail
Tool storage area
Punched metal anti-slip

Cab and interior

Control joysticks with 4 switches each
Heater & air-conditioner, automatic
Hydraulic dampening cab mounts
Adjustable operator seat and joystick control console
Flexible antenna
AM/FM stereo with CD player and MP3 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, front
- Windshield wiper with intermittent feature

Anti-vandalism kit assembly preparation

Master key

Rear-view camera

Undercarriage

Hydraulic track adjusters
Greased and sealed track link
Track guard

Digging equipment

Manual centralized lubrication

OPTIONAL EQUIPMENT

Engine

Block heater: 240V
Oil bath pre-cleaner
Rain cap
Diesel coolant heater, 5 kW
Water separator with heater
Reversible cooling fan

Electric

Extra lights:
– Cab-mounted 3
– Boom-mounted 1
– Counterweight-mounted 1
Extra lights (cab front only):
– Cab-mounted 2
– Boom-mounted 1
Travel alarm
Anti-theft system
Rotating warning beacon

Hydraulic system

Hose rupture valve: arm
Boom float function
Hydraulic piping:
– Work tool management system (up to 20 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 fit piping
- Volvo hydraulic quick fit (S1, U21)
Hydraulic oil, ISO VG 32
Hydraulic oil, ISO VG 46
Hydraulic oil, ISO VG 68
Hydraulic oil, biodegradable 32
Hydraulic oil, biodegradable 46
Hydraulic oil, long life 32
Hydraulic oil, long life 46
Hydraulic oil, long life 68
Pilot control pattern change

Superstructure

Full height counterweight: 5 000 kg
Undercover (HD 4,5 mm)

Cab and interior

Fabric seat
Fabric seat with heater
Fabric seat with heater and air suspension
Control joystick with semi-long levers
Control joystick with proportional control
Opening top hatch
Cab mounted falling object guard (FOG)
– Frame-mounted
– Cab-mounted
Cab-mounted falling object protective structure (FOPS)
Smoker kit (Ashtray and lighter)

Screen guard for front window
Sunlight protection, roof (steel)
Lower wiper with intermittent control
Straight travel pedal
Anti-vandalism kit
Specific key
Rear view mirror, counterweight

Undercarriage

Full track guard
Undercover (HD 10 mm)

Track shoes

500/600/700 mm, triple grousers

Digging equipment

Boom: 5,7 m monoblock
5,57 m 2-piece
Arm: 2,0/2,5/2,9/3,5 m
Linkage with lifting eye
Extended greasing bushing
Auto lubrication system

Service

Tool kit, daily maintenance
Tool kit, full scale
CareTrack

Standard and optional equipment may vary by market. Please consult your local Volvo dealer for details.

NOTES



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



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
www.volvoce.com

Ref. No. VOE21B1003802 English (Global)
Printed in Sweden 2009.4-1 EXC
Volvo, Seoul