

VOLVO EXCAVATOR

EC180C

18.3 – 19.2 t, 118 hp



MORE CARE. BUILT IN.



VOLVO – A PARTNER TO TRUST.

Most days it's just you and your machine. But that machine is more than just hard-working steel. It's your partner. And for the partner you can rely on everyday, put your trust in the Volvo EC180C Excavator. Small contractors, owner/operators and rental companies trust it for versatility in pipe laying, landscaping, road maintenance, drainage ditching, levelling/fine grading and more. The Volvo EC180C does it all. Excellent control and capacity. Quality from bucket to counterweight. An improved Volvo Care Cab. Proven, industry-leading fuel economy. It's ready to make you money. Let's go partner.

Your local partner around the globe

Since 1927, Volvo has earned a global reputation for providing complete solutions. Volvo is built on core values of quality, safety and environmental care. The extensive line of construction equipment is augmented by Volvo's commercial transport solutions, including buses and trucks. This global experience and expertise have led to the ongoing development of engines with the lowest fuel consumption in their class. Today, the tradition continues with Volvo C-Series Excavators – designed and built to the exacting standards that make each machine a trusted Volvo partner.

The Volvo edge in fuel efficiency

Fuel usage can be a huge operating expense. Rest assured, because Volvo doesn't rest on reputation. The EC180C is set to remain the industry leader that gets the most out of each tank.

Ease into legendary Volvo comfort

Everybody is now paying attention to comfort. If you've been in a Volvo cab, you know Volvo is the innovative leader in comfort. That hasn't changed, but our Care Cab has been intelligently improved. The EC180C puts you in command. Improved visibility. A larger work environment with more floor space. Greater access to controls and a seat you can work in all day long.

Trust Volvo quality and protection

Quality lasts and the Volvo EC180C has it throughout – from the reinforced service doors to the rigid, long-life undercarriage. See it, touch it and feel it. It's better than the competitors and it's because of quality.

Those who have owned or operated a Volvo Wheel Loader, Articulated Hauler or any of our machines, trust Volvo for quality, comfort and safety. We're proud of that, and the Volvo EC180C Excavator is another example of that strong legacy.

Strength and endurance

The conditions you operate in aren't getting any easier. That's why the Volvo EC180C is built to handle it all with stable, proven booms and arms. Every detail – from the digging equipment to the track – has been designed and tested to live up to high Volvo standards.

The experience for your application

From the installation of footings and the trenching for utilities to the excavation of basements and the loading of trucks, the Volvo EC180C Excavator is ready for your work.



• Volvo: a sign of trust and quality.



• Ideal reach and lift capacity.



• Reinforced boom/arm handles all the jobs.



• Intelligent command means greater profits.



• Efficient Volvo engine delivers high torque at very low RPMs.

- Reliable, reinforced boom and arm handles a variety of jobs with an ideal combination of capacity, reach and force.
- Fast cycle times while excavating, loading and lifting are a result of an ideal combination of capacity, reach and force.
- Volvo high-tech toughness puts you comfortably in command of greater profits.
- Powerful Volvo V-ACT engine delivers proven performance and industry-leading fuel efficiency through high torque at low revs.

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

As the world's 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.



TAKE COMFORT. TAKE CARE. TAKE COMMAND.

You know the feeling when everything is clicking? Smooth movements. Full bucket every time. Fast work pace. You're in the "zone" and don't even realize you've worked for 10 hours. Volvo EC180C owners and operators know that feeling well. That's because the EC180C is built for command with industry-leading comfort and safety. We've made the legendary Volvo Care Cab even better. Dependable Volvo safety puts your mind at ease with protection and confidence. Everything is right where you want it. That's because operators spoke, and Volvo listened. Now listen to this: you too can find the "zone" everyday with the Volvo EC180C.

Innovative new Care Cab

Innovators never rest. And the EC180C Care Cab keeps Volvo at the forefront of operator comfort and productivity. The cab is now wider. Pedal positions have been shifted forward for more foot space. Experience the adjustable seat, which supports your whole body and maintains a uniform operating position in relation to the joystick and pedals. To reduce fatigue and hazardous whole body vibration, Volvo has gone beyond emerging cab vibration regulations with an enhanced suspension system.

Electronic climate control

Intelligently going beyond automobile technology, the EC180C's high-tech electronic climate control system comforts your entire body with the highest-capacity heating and cooling ventilation system available in the excavator industry.

Greater visibility for greater command

The new Volvo cab includes more glass, including above through the roof hatch. This expands your view during high-reach applications. There's better visibility to the rear from a smaller, lower engine hood. The gas strut assisted windshield opens with ease, while the intelligently positioned windshield wiper cleans a wider area – including both upper

corners. The easy-to-read LCD color monitor keeps you informed in real time. The EC180C Volvo engine produces less noise and the pressurized, well-insulated cab blocks sound. Step inside the Volvo experience and get more done.

The protection of Volvo safety

The new-design Volvo Care Cab, with operator protective structure provides security. Volvo's attention to ergonomics when designing controls and pedals ensures operator protection for safe, long-term use. An optional color rear view camera displaying on the LCD color monitor provides a safe view while swinging or travelling.

Anti-slip walk areas

Outside the cab, all steps and platforms feature quality anti-slip traction with punched steel plates for superior grip – even when wet or icy. The bolt-on plates feature recessed bolts for less risk of trip hazard.

Environmental care: a core Volvo value

External sound levels have been greatly reduced for fewer disturbances. The exterior paint is lead-free and more than 95% of the machine materials are recyclable. Trust Volvo for leadership in our cornerstone values of safety and environmental protection.



• Experience the comfort of the suspension seat.



• Well-positioned monitor and controls.



• Greater floor space with ergonomic pedals.



• Industry's highest heating/cooling capacity with 14 vents.

- Expansive glass and clear sight lines provide outstanding all-around visibility with greater safety.
- Experience the adjustable, suspension seat and take command of the jobsite.
- Intelligent new, easy-to-read LCD color monitor and perfectly positioned controls.
- All-new cab is larger and more comfortable with ergonomic controls and vibration dampening suspension – for all-day production.
- Enjoy the comfort and greater productivity of the excavator industry's highest heating and cooling capacity, distributing comfort evenly with 14 air vents.



MORE WORK. LESS DOWNTIME. THAT'S INTELLIGENT.

Everyone is looking for smarter ways to do more work. Here it is: the Volvo EC180C Excavator. The best way to make more profit is to spend more time up, running and working. And the best way to achieve this is through the Volvo EC180C's complete service access, long service intervals and easy routine maintenance. It's your Volvo edge and it means each day starts easier and ends only when the job is done. Experience power, capacity and stability. Go to work the smart way and take on all the excavation, piping, grading and trenching jobs you can find.

Easier service for maximum uptime

The Volvo EC180C makes service easy so you can get to work faster. It's easy to change the oil, fuel and water separator filters, as well as drain the oil and access the hydraulic pump. Inside the cab, the LCD color monitor makes it quick and easy to check the engine oil level and perform self-diagnostics.

Daily maintenance with ease

Ground level access makes routine inspection and service simple. The cab air filter is conveniently located outside the cab for easy replacement. Fuses are easy to check in a sealed and protected box behind the cab. The self-cleaning design of the sloped track frame reduces build up of mud and debris.

Trust the V-ACT Volvo engine

The Volvo EC180C delivers the strength and power you need with an intelligent new generation EU Stage IIIA/EPA Tier 3 compliant V-ACT (Volvo Advanced Combustion Technology) engine. It delivers 87 kW (118 hp) of optimized output. And with high engine torque at low revs, Volvo achieves ultra-efficient fuel consumption.

Hydraulic system gives you an edge

The Volvo advanced hydraulic system helps you do more with precise, highly-responsive control that allows you to know

exactly what to expect when you touch the joystick. In-cab operator-selectable hydraulic flow and pressure increases performance and ease of attachment use at full performance. There's also boom, arm and swing priority.

Hydraulic cooling system with intelligence

Intuitively sensing hydraulic oil/engine temperature, fan speed is hydraulically (not engine) driven to automatically activate and keep the system regulated at an optimized temperature. There's also extra reliability from O-ring faced sealing in all hydraulic connections. An anti-corrosive aluminium cooling module offers better heat dissipation and long life.

Profit with the universal quick fit

The new optional universal quick fit features a proven design that makes attachment change out easy. Increased bucket speed, optional boom float position and a wide range of working modes provide the perfect match for your attachments and profitability.

Lower costs through common parts

Volvo designs all its machines with a common vision. The Volvo EC180C uses over 100 components and consumable parts common to other Volvo machines you may run. This results in higher availability of parts and lower operating costs.



- Simplified, ground level service access, long service intervals and centralized lubrication points mean more uptime.
- Quick and easy access to hydraulic pumps and filters.
- Anti-slip, punched steel platforms and walk areas offer superior grip and safety.
- Intelligent, advanced hydraulic system balances available engine power with hydraulic output for smooth, responsive control.
- More uptime from well-protected hydraulic lines and easy-access grease points.



• Simplified, ground level service access.



• Easy access filters.



• Safe, anti-slip steps and platforms.



• More care built in through quality.

QUALITY MEETS DURABILITY. THE PERFECT MATCH.

Why does Volvo use quality parts, components and fabrication throughout the EC180C? It's because a Volvo excavator built with quality lasts and lasts. Mud, rock and water are no match. Your Volvo EC180C is built for strength, protection and endurance. Roll on to the jobsite and tear through your work. From the first turn of the key on day one until you set the bucket down at the close of a job years later, you're working with reliability. You're working with Volvo. You're working with a partner you can trust. Volvo knows that still means something.

High-tech toughness that is intelligent

You have to be tough in this line of work. But it also pays to be intelligent. The Volvo EC180C brings it all together through high-tech innovation that's still easy to learn and operate. The machine's computer balances maximum available horsepower to hydraulic output, preventing engine overload – regardless of load on the pumps or engine speed. How do we do it? It's all Volvo – with a Volvo engine, designed by Volvo engineers to specifically work with Volvo components.

An investment in quality

Quality from top to bottom. That's the Volvo way, and you can find it right down to the details of the EC180C. You see it from the cab to the protected electrical system. You feel it in the rigid service doors and the sturdy engine hood. From the strengthened, high-tensile steel undercarriage frame and reinforced superstructure with double-welded corners to the heavy-duty booms and arms – it's built with quality for reliability, lower costs and high resale value.

Track offers strength beneath you

Durability, reliability and strength are built into the Volvo EC180C undercarriage and track. And for less noise and guaranteed longevity without leaks, there's also a lifetime greased sealed track link.

Rely on your Volvo dealer for the support services you need:

CareTrack monitors it all

CareTrack is an optional GPS monitoring program that works with the machine's diagnostic system. Installation is simple. Track geographic machine location, usage, fuel consumption and more from your computer. Maximize uptime through important service reminders. CareTrack also offers theft protection by allowing you to limit geographic areas or hours of the day the machine can be operated.

MATRIS reports on your efficiency

MATRIS delivers detailed operating history analysis about the utilization and efficiency factors that influence your operating costs. MATRIS turns the data captured inside the machine's computer into easy-to-use graphs and reports. Maximize machine and operator performance, while reducing maintenance costs and increasing service life.

PROSIS makes parts ordering faster

PROSIS is a CD-ROM application that makes it quick and easy for your Volvo dealer to order all your Volvo CE product parts. Your dealer will help you find the right part, place your order and get you back up and running fast.





• Lifetime greased and sealed track link.



• Your trust. Your satisfaction. Rely on it.



• Optional protected arm with reinforced strip.



• Volvo is the partner you can grow with.

- Lifetime greased and sealed track link ensures long life.
- Your Volvo dealer is always there to help with parts, service and support.
- Optional protected arm with longer, reinforced strip and replaceable steel plates at both ends offers less wear and cheaper arm end maintenance.
- Reinforced, robotically-welded undercarriage frame distributes stress with rigid strength.

MORE OPTIONS FOR MORE OF WHAT YOU WANT - PROFITS.

It's a custom-fit world, so why should your excavator be any different? We offer a wide variety of optional equipment choices that will make your Volvo EC180C the perfect moneymaker. Add some extra protection or make those 12-hour shifts a little more productive with some additional comfort features. Your options are open. Take your pick.

Hydraulic kits

A wide variety of hydraulic kits are available for various boom and arm combinations. Each kit maximizes performance according to the machine's boom and arm length/shape. Get the most out of rotating/tilting attachments, crushers and hammers. Choose between 1 or 2 pump flow for best performance.

Hydraulic quick fit

A Volvo hydraulic quick fit makes changing attachments quick and easy – all from the comfort and safety of the cab. Three different Volvo quick fit types (universal, S6 and S1) are available to fit new and existing customer's buckets/ attachments, making it very user friendly.

Extra work lights

Extra work lights provide increased visibility, safety and precision, while extending the workday in low light conditions. Features two lights in the front of the machine, one light in the rear area of the cab and one light mounted on the counterweight.

Wrist control joysticks - proportional control

Low-effort, wrist control joysticks provide smooth, precision control for increased comfort, efficiency and production. Wrist control joysticks with proportional control switches are also available.

Operator seats

Volvo offers a wide variety of ergonomic operator seats designed specifically for comfort and protection. All seats, from various adjustable models to the most advanced air-suspended models, provide excellent support and are individually adjustable to suit operator preferences.

Diesel-driven engine coolant heater

The diesel-driven engine coolant heater aids low temperature starting, while simultaneously warming the cab. Heating time duration can be adjusted, set and programmed in advance to engage at a specific date and time.

FOG and FOPS cab protection

For added safety and protection, FOG (Falling Object Guard) and FOPS (Falling Object Protective Structure) certified cabs provide peace-of-mind for tough conditions such as quarries and demolition. The front guard of the FOG unit is tiltable and supported by a gas strut for easy front window cleaning.

Straight travel pedal

A pedal located by the left foot rest operates two travel motors at the same time, providing convenience when traveling and efficient work control in applications such as pipe laying.

Rear view camera

For improved safety on the job site, the manually-operated camera provides a clear rear view when reverse travel is selected or to the right hand side of the superstructure when the swing function is activated. A clear display is visible on the wide screen, color LCD of the IECU (Instrument Electronic Control Unit). The protected camera can be switched manually, using a selection switch on the keypad, to show either rear or side view.

To customize your excavator with other optional equipment features to suit your application, contact your local Volvo dealer.



VOLVO OPTIONAL EQUIPMENT



Hydraulic kits
Hydraulic quick fit
Extra work lights

**Wrist control joysticks -
 proportional control**
Operator seats
**Diesel-driven engine
 coolant heater**

FOG and FOPS cab protection
Straight travel pedal
Rear view camera

NOTE: Some features listed as optional equipment are standard equipment in some markets. Some equipment features listed are not available in all markets. Not a complete list of available optional equipment features. See included specification sheet for a complete listing.

TAKE A TOUR. THEN TAKE IN MORE PROFITS.

MORE SAFETY

- **The new-design Volvo Care Cab**, with operator protective structure provides security.
- **Anti-slip steps and platforms** with punched steel plates for superior grip even when wet or icy.
- **Low engine emission levels and low noise.**
- **Reduced engine hood size/height** for better rear visibility.
- **Recessed bolts on superstructure** walk areas for less risk of trip hazard.
- **Lead-free exterior paint:** more harmony with the environment.

MORE PROFIT

- **New generation Volvo V-ACT engine:** powerful, innovative and efficient.
- Volvo continues to deliver **industry-leading fuel efficiency.**
- **Advanced hydraulic system** with priority functions and optional boom float position.
- **Optional universal quick fit** makes versatility easier.

MORE COMFORT

- **New larger, more comfortable cab** puts you in command with perfectly placed, ergonomic controls.
- **Roomy, adjustable seat** supports your whole body.



- **Top-mounted windshield wiper** cleans a wider area – including both upper corners.
- **Vibration dampening** protects against whole body fatigue for all-day production.
- **Electronic climate control system** delivers the highest-capacity heating and cooling available.



MORE UPTIME

- **Simplified, ground level serviceability** for quick access.
- **Easy access, centralized lubrication points.**
- **Easy-to-read LCD color monitor** for real-time information and trouble-shooting.
- **Easy to learn. Easy to operate. Easy to get more done.**

MORE QUALITY

- **Strengthened undercarriage frame** provides endurance against daily abuse.
- **Reinforced boom/arm and proven components** deliver every time.
- **Reinforced superstructure** with double welded corners.
- **Lifetime greased sealed track link** prevents leaks and guarantees long life.

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/EPA Tier 3 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
Max. power, at	30 r/s (1,800 rpm)
Net (ISO 9249, SAE J1349)	87 kW (118 hp)
Gross (SAE J1995)	98 kW (133 hp)
Max. torque at 1,350 rpm	625 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	140 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	250 l
Hydraulic system, total	265 l
Hydraulic tank	123 l
Engine oil	25 l
Engine coolant	24 l
Swing reduction unit	2.6 l
Travel reduction unit	2 x 5.8 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	11.9 rpm
Max. swing torque	51.7 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	159 kN
Max. travel speed	2.7/5.3 km/h
Gradeability	35°

Undercarriage

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

Track pads	2 x 46
Link pitch	190 mm
Shoe width,	
triple grouser	600/700/800/900 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 145 l/min

Pilot pump:

Type: Gear pump
Maximum flow: 18 l/min

Hydraulic motors:

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

Relief valve setting:

Implement	32.4/34.3 MPa (330/350 kg/cm ²)
Travel circuit	34.3 MPa (350 kg/cm ²)
Swing circuit	26.5 MPa (270 kg/cm ²)
Pilot circuit	3.9 MPa (40 kg/cm ²)

Hydraulic cylinders:

Mono boom	2
Bore x Stroke	ø115 x 1,165 mm
1st boom of 2-piece boom	2
Bore x Stroke	ø115 x 1,165 mm
2nd boom of 2-piece boom	1
Bore x Stroke	ø160 x 950 mm
Arm	1
Bore x Stroke	ø120 x 1,345 mm
Bucket	1
Bore x Stroke	ø105 x 1,000 mm

Cab

The new-design Volvo Care Cab, with operator protective structure provides security, along with more interior space, leg room and foot space. Audio system with remote control. Cup holders, 3 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 side door. Interior lighting consists of one reading light and one cab light with timer.

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 101 dB(A)

Ground pressure

- **EC180C L** with 5.2 m boom, 2.6 m arm, 690 l (470 kg) bucket, 3,200 kg counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm	18,300 kg	40.9 kPa	2,800 mm
	700 mm	18,700 kg	35.9 kPa	2,900 mm
	800 mm	19,000 kg	32.4 kPa	3,000 mm
	900 mm	19,200 kg	29.4 kPa	3,200 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.

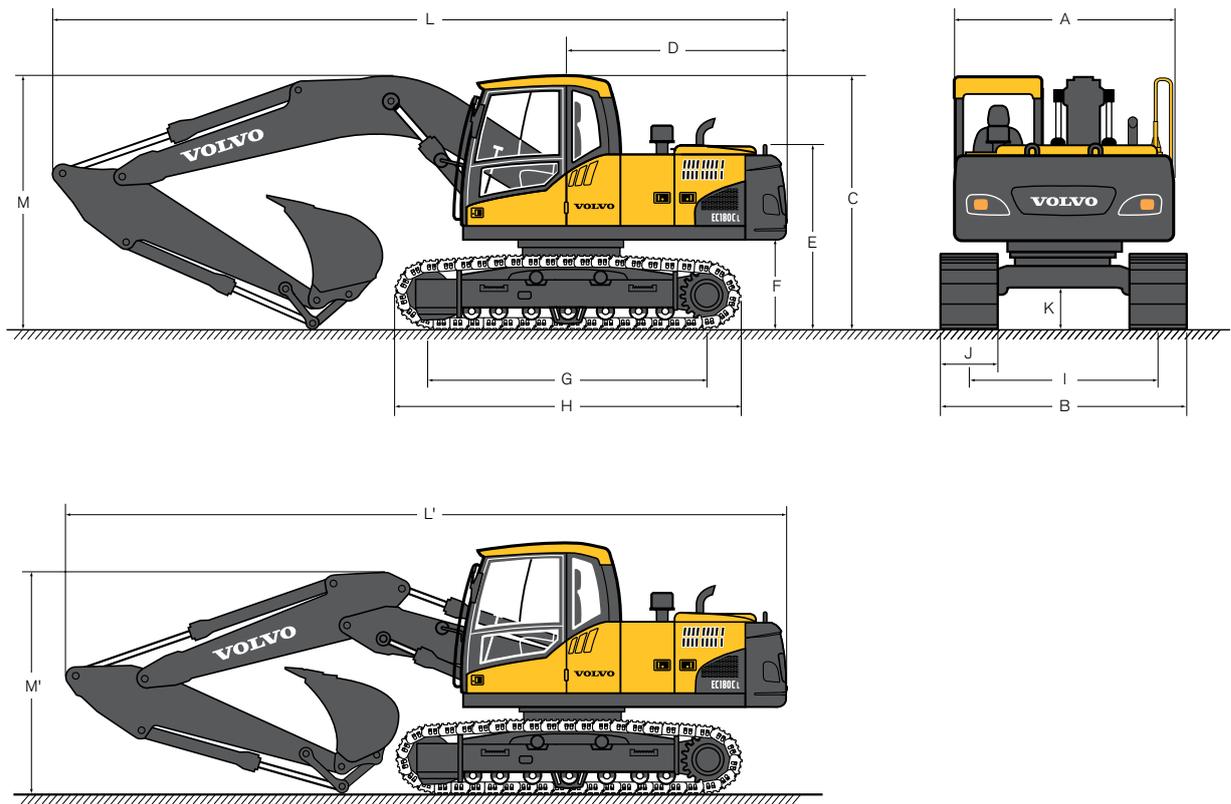
- **EC180C L** with 3,200 kg counterweight

Description	Max. bucket volume / weight	5.2 m boom, direct fit		
		2.3 m arm	2.6 m arm	3.0 m arm
GP bucket 1.5 t/m ³	l / kg	1,225 / 1,000	1,025 / 850	850 / 700
GP bucket 1.8 t/m ³	l / kg	1,075 / 900	900 / 750	750 / 600
HD bucket 1.8 t/m ³	l / kg	1,025 / 1,000	875 / 850	700 / 700
HD bucket 2.0 t/m ³	l / kg	950 / 950	800 / 800	650 / 650

- **EC180C L** with 3,200 kg counterweight

Description	Max. bucket volume / weight	5.2 m boom, quick fit		
		2.3 m arm	2.6 m arm	3.0 m arm
GP bucket 1.5 t/m ³	l / kg	1,100 / 950	925 / 750	725 / 600
GP bucket 1.8 t/m ³	l / kg	975 / 800	825 / 700	650 / 550
HD bucket 1.8 t/m ³	l / kg	925 / 900	775 / 750	600 / 600
HD bucket 2.0 t/m ³	l / kg	875 / 850	725 / 700	575 / 550

Dimensions

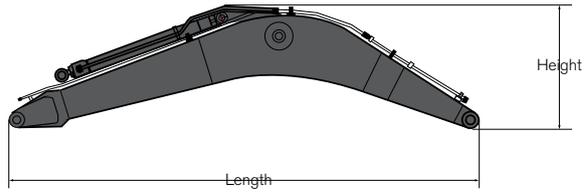


• EC180C L

Description	Unit	5.2 m boom		
		2.3 m arm	2.6 m arm	3.0 m arm
A. Overall width of upper structure	mm	2,490	2,490	2,490
B. Overall width	mm	2,800	2,800	2,800
C. Overall height of cab	mm	2,900	2,900	2,900
D. Tail swing radius	mm	2,450	2,450	2,450
E. Overall height of engine hood	mm	2,110	2,110	2,110
F. Counterweight clearance *	mm	1,042	1,042	1,042
G. Tumbler length	mm	3,370	3,370	3,370
H. Track length	mm	4,166	4,166	4,166
I. Track gauge	mm	2,200	2,200	2,200
J. Shoe width	mm	600	600	600
K. Min. ground clearance *	mm	460	460	460
L. Overall length	mm	8,780	8,670	8,710
L'. Overall length	mm	8,600	8,520	8,520
M. Overall height of boom	mm	2,990	2,900	3,030
M'. Overall height of boom	mm	2,800	2,800	2,960

* Without shoe grouser

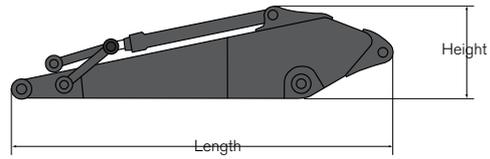
• **Boom**



Description	Unit	5.2 m	5.0 m 2-piece
Length	mm	5,400	5,200
Height	mm	1,640	1,270
Width	mm	565	565
Weight	kg	1,350	1,600

* Includes arm cylinder, piping and pin

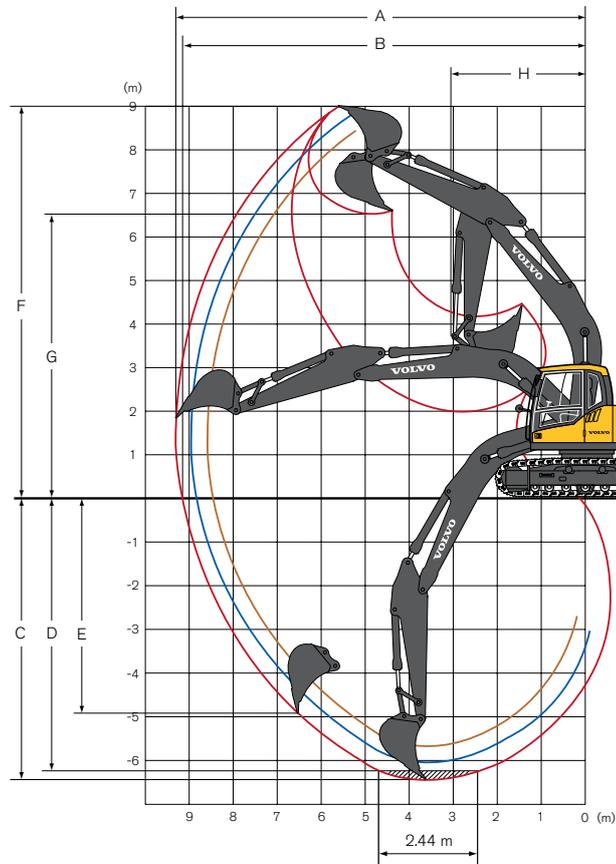
• **Arm**



Description	Unit	2.3 m	2.6 m	3.0 m
Length	mm	3,240	3,500	3,900
Height	mm	855	955	845
Width	mm	395	395	395
Weight	kg	760	776	840

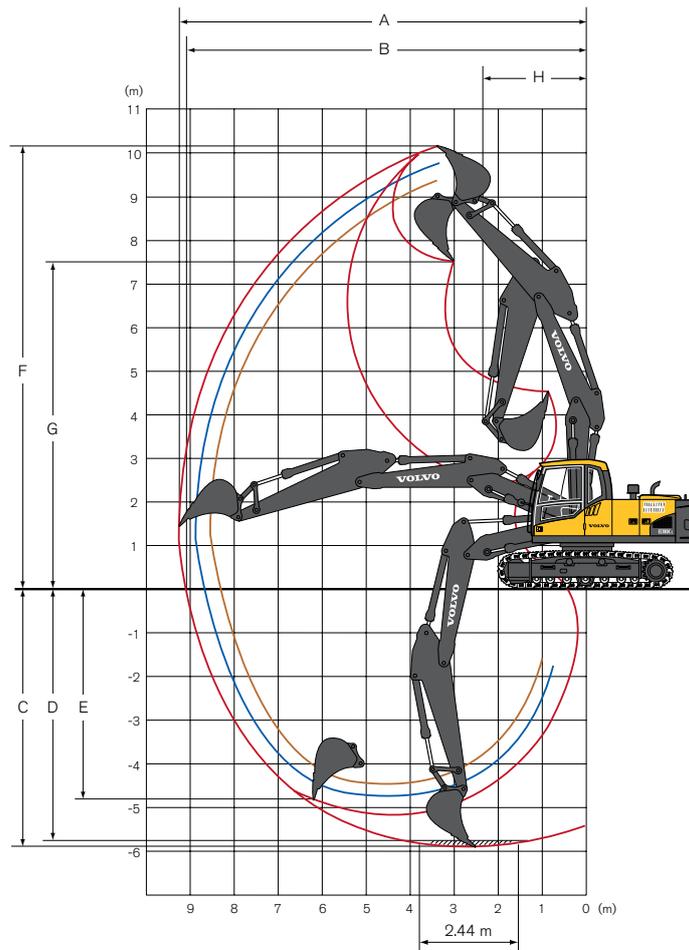
* Includes bucket cylinder, linkage and pin

Working ranges & digging force



Machine with direct fit bucket	Unit	5.2 m boom		
		2.3 m arm	2.6 m arm	3.0 m arm
A. Max. digging reach	mm	8,650	8,970	9,340
B. Max. digging reach on ground	mm	8,480	8,800	9,180
C. Max. digging depth	mm	5,710	6,010	6,410
D. Max. digging depth (2.44 m level)	mm	5,400	5,740	6,170
E. Max. vertical wall digging depth	mm	4,040	4,510	4,930
F. Max. cutting height	mm	8,560	8,820	9,030
G. Max. dumping height	mm	6,140	6,370	6,570
H. Min. front swing radius	mm	3,070	3,070	3,070

Digging forces with direct fit bucket		Unit	5.2 m boom		
			2.3 m arm	2.6 m arm	3.0 m arm
Bucket radius		mm	1,315	1,315	1,315
Breakout force - bucket (Normal/Power boost)	SAE J1179	kN	99.2 / 105.2	99.2 / 105.2	99.2 / 105.2
	ISO 6015	kN	111.3 / 118.1	111.3 / 118.1	111.3 / 118.1
Tearout force - arm (Normal/Power boost)	SAE J1179	kN	84.9 / 90.1	75.5 / 80.0	68.4 / 72.6
	ISO 6015	kN	87.3 / 92.6	77.4 / 82.1	69.9 / 74.1
Rotation angle, bucket		deg.	174	174	174



Machine with direct fit bucket	Unit	5.0 m 2-piece boom		
		2.3 m arm	2.6 m arm	3.0 m arm
A. Max. digging reach	mm	8,550	8,870	9,240
B. Max. digging reach on ground	mm	8,370	8,690	9,080
C. Max. digging depth	mm	5,180	5,500	5,890
D. Max. digging depth (2.44 m level)	mm	5,060	5,380	5,780
E. Max. vertical wall digging depth	mm	4,040	4,400	4,800
F. Max. cutting height	mm	9,540	9,850	10,160
G. Max. dumping height	mm	6,950	7,240	7,550
H. Min. front swing radius	mm	2,290	2,250	2,350

Digging forces with direct fit bucket		Unit	5.0 m 2-piece boom		
			2.3 m arm	2.6 m arm	3.0 m arm
Bucket radius		mm	1,315	1,315	1,315
Breakout force - bucket (Normal/Power boost)	SAE J1179	kN	99.2 / 105.2	99.2 / 105.2	99.2 / 105.2
	ISO 6015	kN	111.3 / 118.1	111.3 / 118.1	111.3 / 118.1
Tearout force - arm (Normal/Power boost)	SAE J1179	kN	84.9 / 90.1	75.5 / 80.0	68.4 / 72.6
	ISO 6015	kN	87.3 / 92.6	77.4 / 82.1	69.9 / 74.1
Rotation angle, bucket		deg.	174	174	174

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.

• EC180C L

 Across under-carriage  Along under-carriage	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 5.2 m + Arm 2.3 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg												*3,870	*3,870	4,838	
	6.0 m kg												*4,120	4,150	5,875	
	4.5 m kg					*4,670	*4,670	*4,380	3,970				*4,410	3,290	6,755	
	3.0 m kg					*6,180	5,810	*4,990	3,830				4,130	2,910	7,215	
	1.5 m kg					*7,730	5,470	5,300	3,680				3,960	2,770	7,337	
	0.0 m kg						7,980	5,290	5,190	3,570				4,060	2,830	7,138
	-1.5 m kg			*9,840	*9,840	7,930	5,250	5,150	3,530					4,520	3,130	6,590
	-3.0 m kg			*12,280	10,040	8,010	5,310							5,790	3,950	5,585
-4.5 m kg																
Boom 5.2 m + Arm 2.6 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg															
	6.0 m kg							*3,900	*3,900				*3,830	3,780	6,267	
	4.5 m kg					*4,300	*4,300	*4,120	4,000				*3,760	3,070	7,096	
	3.0 m kg			*9,130	*9,130	*5,810	*5,810	*4,770	3,850	3,920	2,760		*3,880	2,740	7,535	
	1.5 m kg					*7,440	5,510	5,340	3,690	3,850	2,690		3,740	2,610	7,651	
	0.0 m kg			*5,100	*5,100	8,020	5,300	5,210	3,570				3,820	2,660	7,462	
	-1.5 m kg	*5,250	*5,250	*9,000	8,220	7,940	5,230	5,150	3,520				4,210	2,910	6,940	
	-3.0 m kg	*9,380	*9,380	*12,600	9,970	7,990	5,270						5,200	3,570	5,996	
-4.5 m kg			*10,110	*10,110								*6,960	5,750	4,351		
Boom 5.2 m + Arm 2.6 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg												*3,550	*3,550	5,413	
	6.0 m kg							*3,450	*3,450				*3,240	*3,240	6,716	
	4.5 m kg							*3,750	*3,750				*3,180	2,780	7,495	
	3.0 m kg			*7,710	*7,710	*5,270	*5,270	*4,440	3,830	3,880	2,730		*3,270	2,500	7,910	
	1.5 m kg			*5,140	*5,140	*6,970	5,490	*5,270	3,650	3,790	2,640		3,430	2,390	8,021	
	0.0 m kg			*5,570	*5,570	7,920	5,230	5,130	3,510	3,720	2,580		3,490	2,420	7,841	
	-1.5 m kg	*4,800	*4,800	*8,430	*8,430	7,800	5,120	5,050	3,430				3,800	2,620	7,347	
	-3.0 m kg	*8,160	*8,160	*13,010	9,720	7,810	5,140	5,060	3,450				4,560	3,130	6,465	
-4.5 m kg			*11,020	9,980	7,400	5,280						*6,500	4,590	4,985		
2-piece boom 5.0 m + Arm 2.3 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg												*5,560	*5,560	4,123	
	6.0 m kg					*6,460	6,330						*4,800	4,240	5,740	
	4.5 m kg			*7,860	*7,860	*7,000	6,130	5,880	3,910				*4,640	3,310	6,638	
	3.0 m kg					*8,010	5,760	5,430	3,770				4,180	2,910	7,106	
	1.5 m kg					8,150	5,400	5,260	3,610				4,000	2,770	7,229	
	0.0 m kg					7,930	5,210	5,150	3,510				4,120	2,840	7,028	
	-1.5 m kg			*10,800	9,760	*7,660	5,170	5,120	3,490				4,620	3,170	6,470	
	-3.0 m kg					*5,370	5,270						*4,100	*4,100	5,382	
-4.5 m kg																
2-piece boom 5.0 m + Arm 2.6 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg					*4,790	*4,790						*4,350	*4,350	4,670	
	6.0 m kg					*5,550	*5,240	*4,290	3,990				*3,790	*3,790	6,139	
	4.5 m kg			*5,870	*5,870	*6,360	6,210	5,630	3,950				*3,650	3,080	6,984	
	3.0 m kg			*11,830	10,990	*7,760	5,830	5,470	3,800				*3,710	2,730	7,430	
	1.5 m kg					8,210	5,450	5,280	3,630	3,800	2,630		3,760	2,610	7,548	
	0.0 m kg			*5,630	*5,630	7,940	5,220	5,150	3,510				3,860	2,660	7,355	
	-1.5 m kg			*9,670	*9,670	7,860	5,150	5,100	3,470				4,270	2,930	6,825	
	-3.0 m kg					*5,960	5,220						*3,960	3,660	5,862	
-4.5 m kg																
2-piece boom 5.0 m + Arm 3.0 m + Shoe 600 mm + Counterweight 3,200 kg	7.5 m kg					*4,650	*4,650						*3,600	*3,600	5,270	
	6.0 m kg					*4,680	*4,680	*4,340	4,010				*3,200	*3,200	6,602	
	4.5 m kg					*5,410	*5,410	*5,100	3,940				*3,080	2,780	7,393	
	3.0 m kg			*10,840	*10,840	*7,360	5,850	5,450	3,780	3,840	2,670		*3,130	2,490	7,814	
	1.5 m kg			*6,320	*6,320	8,190	5,430	5,250	3,590	3,750	2,590		*3,310	2,380	7,927	
	0.0 m kg			*6,050	*6,050	7,870	5,150	5,090	3,450	3,690	2,530		3,520	2,420	7,744	
	-1.5 m kg			*9,010	*9,010	7,740	5,040	5,010	3,380				3,860	2,630	7,243	
	-3.0 m kg			*8,900	*8,900	*6,580	5,080	*4,530	3,420				*3,950	3,190	6,346	
-4.5 m kg																

- 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/EPA Tier 3 requirements
Air filter with indicator
Air intake heater
Electric engine shut-off
Cyclone pre-cleaner
Fuel filter and water separator
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
Work tool management system
(up to 20 programmable memories)
Master electrical disconnect switch
Engine restart prevention circuit
High-capacity halogen lights:
– Frame-mounted 2
– Boom-mounted 1

Batteries, 2 x 12 V / 140 Ah
Start motor, 24 V / 4.8 kW

Hydraulic system

Automatic sensing hydraulic system
– Summation system
– Boom priority
– Arm priority
– Swing priority
Hydraulic piping:
– Hammer & shear: variable flow and 2-step pressure selection
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 plates

Cab and interior

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 holder
– Door locks
– Tinted glass
– Floor mat
– Horn
– Large storage area
– Pull-up type front window
– Removable lower windshield
– Seat belt
– Safety glass
– Sun shields, front, roof, rear
– Windshield wiper with intermittent feature
Anti-vandalism kit assembly preparation
Opening top hatch
Master ignition key

Undercarriage

Hydraulic track adjusters
Greased and sealed track chain
Track guard

OPTIONAL EQUIPMENT

Engine

Block heater: 120 V, 240 V
Fuel filler pump: 50 l/min, with automatic shut-off
Oil bath pre-cleaner
Rain cap
Diesel driven coolant heater
Water separator with heater
Reversible cooling fan

Electric

Extra work lamp
Extra work lamp (cab front only)
Travel alarm
Anti-theft system
Overload warning device
Rotating warning beacon

Hydraulic system

Hose rupture valve: boom, arm
Boom float function
Hydraulic piping:
– Hammer & shear, variable flow and pressure pre-setting
– Slope & rotator
– Grapple
– Oil leak (drain) line
– Quick fit piping

Volvo hydraulic quick fit, S1, S6 size
Hydraulic oil, ISO VG 32
Hydraulic oil, ISO VG 46
Hydraulic oil, ISO VG 68
Hydraulic oil, biodegradable 32
Hydraulic oil, biodegradable 46

Superstructure

Undercover (heavy-duty 4.5 mm)
Full height counterweight: 3,200 kg

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
Control joysticks with 4 switches each
Air-conditioner, manual
Heater & air-conditioner, automatic
Falling object guard (FOG)
– Cab-mounted
Cab-mounted falling object protective structure (FOPS)
Screen guard for front window
Rain shield
Sunlight protection, roof (steel)
Lower wiper with intermittent control

Anti-vandalism kit
Specific key
Rear view camera
Smoker kit
Rear view mirror

Undercarriage

Full track guard
Undercover (heavy-duty 10 mm)

Track shoes

Track shoes 500 mm, 600 mm, 700 mm, 800 mm, 900 mm with triple grousers

Digging equipment

Boom: 5.2 m monoblock
5.0 m 2-piece
Arm: 2.3 m / 2.6 m / 3.0 m

Service

Tool kit, daily maintenance
Tool kit, full scale
Auto lubrication system

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

NOTES

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

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www.volvo.com

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