Volvo Excavator

EC180C

18.3 – 19.2 t, 118 hp

More Care. Built In.
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 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 Partner to Trust.**
• 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-to18-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.
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 slewing 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.
• 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.
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 Stage IIIA 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 slew 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.
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 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.

• Volvo is the partner you can grow with.
** 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**
Inside the cab, the wide screen color LCD of the IECU (Instrument Electronic Control Unit) provides a safe rear view when reverse travel is selected or of the right hand side of the superstructure when the slew function is activated. The protected rear and side view cameras can be switched manually using the selection switch on the keypad.

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

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.
• **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 compliant engine uses precise, high-pressure fuel injectors, turbo charger and air to air intercooler and electronic engine controls to optimize machine performance.

<table>
<thead>
<tr>
<th>Engine</th>
<th>Volvo D6E EBE3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. power, at</td>
<td>30 r/s (1 800 r/min)</td>
</tr>
<tr>
<td>Net (ISO 9249, SAE J1349)</td>
<td>87 kW (118 hp)</td>
</tr>
<tr>
<td>Gross (SAE J1995)</td>
<td>98 kW (133 hp)</td>
</tr>
<tr>
<td>Max. torque at 1 350 r/min</td>
<td>625 Nm</td>
</tr>
<tr>
<td>No. of cylinders</td>
<td>6</td>
</tr>
<tr>
<td>Displacement</td>
<td>5.7 l</td>
</tr>
<tr>
<td>Bore</td>
<td>98 mm</td>
</tr>
<tr>
<td>Stroke</td>
<td>126 mm</td>
</tr>
</tbody>
</table>

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 solenoids 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 |
Slew reduction unit | 25 l |
Travel reduction unit | 2 x 5.8 l |

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

| Max. slew speed | 11.9 r/min |
| Max. slew 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 |

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-manoeuvring precision and excellent fuel economy. The summation system, boom, arm and slew 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.

Slew priority: Gives priority to slew 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: 1.8 l/min

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

Relief valve setting:
Implement ........................ 32.4/34.3 MPa
Travel circuit .................... 34.3 MPa
Slew circuit .................... 26.5 MPa
Pilot circuit .................... 39 MPa

Hydraulic cylinders:
Mono boom ........................ 2
Bore x Stroke .................. ø15 x 1 165 mm
1st boom of 2-piece boom .. 2
Bore x Stroke .................. ø15 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. 3 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)

14
**Ground pressure**

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Shoe width</th>
<th>Operating weight</th>
<th>Ground pressure</th>
<th>Overall width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple grouser</td>
<td>600 mm</td>
<td>18 300 kg</td>
<td>40.9 kPa</td>
<td>2 800 mm</td>
</tr>
<tr>
<td></td>
<td>700 mm</td>
<td>18 700 kg</td>
<td>35.9 kPa</td>
<td>2 900 mm</td>
</tr>
<tr>
<td></td>
<td>800 mm</td>
<td>19 000 kg</td>
<td>32.4 kPa</td>
<td>3 000 mm</td>
</tr>
<tr>
<td></td>
<td>900 mm</td>
<td>19 200 kg</td>
<td>29.4 kPa</td>
<td>3 200 mm</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Description</th>
<th>Max. bucket volume / weight</th>
<th>5.2 m boom, direct fit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2.3 m arm</td>
</tr>
<tr>
<td>GP bucket 1.5 t/m³</td>
<td>1 / kg</td>
<td>1 225 / 1 000</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³</td>
<td>1 / kg</td>
<td>1 075 / 900</td>
</tr>
<tr>
<td>HD bucket 1.8 t/m³</td>
<td>1 / kg</td>
<td>1 025 / 900</td>
</tr>
<tr>
<td>HD bucket 2.0 t/m³</td>
<td>1 / kg</td>
<td>950 / 950</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Max. bucket volume / weight</th>
<th>5.2 m boom, quick fit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2.3 m arm</td>
</tr>
<tr>
<td>GP bucket 1.5 t/m³</td>
<td>1 / kg</td>
<td>1 100 / 950</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³</td>
<td>1 / kg</td>
<td>975 / 800</td>
</tr>
<tr>
<td>HD bucket 1.8 t/m³</td>
<td>1 / kg</td>
<td>925 / 900</td>
</tr>
<tr>
<td>HD bucket 2.0 t/m³</td>
<td>1 / kg</td>
<td>875 / 850</td>
</tr>
</tbody>
</table>
### Dimensions

- **EC180C L**

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

* Without shoe grouser
### Description

<table>
<thead>
<tr>
<th>Description</th>
<th>5,2 m</th>
<th>5,0 m 2-piece</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>5 400</td>
<td>5 000</td>
</tr>
<tr>
<td>Height (mm)</td>
<td>1 640</td>
<td>1 270</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>565</td>
<td>565</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>1 350</td>
<td>1 600</td>
</tr>
</tbody>
</table>

*Includes arm cylinder, piping and pin*

### Description

<table>
<thead>
<tr>
<th>Description</th>
<th>2,3 m</th>
<th>2,6 m</th>
<th>3,0 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>3 240</td>
<td>3 500</td>
<td>3 900</td>
</tr>
<tr>
<td>Height (mm)</td>
<td>855</td>
<td>955</td>
<td>845</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>395</td>
<td>395</td>
<td>395</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>760</td>
<td>776</td>
<td>840</td>
</tr>
</tbody>
</table>

*Includes bucket cylinder, linkage and pin*
Working ranges & digging force

Machine with direct fit bucket

<table>
<thead>
<tr>
<th></th>
<th>2,3 m arm</th>
<th>2,6 m arm</th>
<th>3,0 m arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Max. digging reach</td>
<td>mm</td>
<td>8 650</td>
<td>8 970</td>
</tr>
<tr>
<td>B. Max. digging reach on ground</td>
<td>mm</td>
<td>8 480</td>
<td>8 800</td>
</tr>
<tr>
<td>C. Max. digging depth</td>
<td>mm</td>
<td>5 710</td>
<td>6 010</td>
</tr>
<tr>
<td>D. Max. digging depth (2,44 m level)</td>
<td>mm</td>
<td>5 400</td>
<td>5 740</td>
</tr>
<tr>
<td>E. Max. vertical wall digging depth</td>
<td>mm</td>
<td>4 040</td>
<td>4 510</td>
</tr>
<tr>
<td>F. Max. cutting height</td>
<td>mm</td>
<td>8 560</td>
<td>8 820</td>
</tr>
<tr>
<td>G. Max. dumping height</td>
<td>mm</td>
<td>6 140</td>
<td>6 370</td>
</tr>
<tr>
<td>H. Min. front slew radius</td>
<td>mm</td>
<td>3 070</td>
<td>3 070</td>
</tr>
</tbody>
</table>

Digging forces with direct fit bucket

<table>
<thead>
<tr>
<th></th>
<th>2,3 m arm</th>
<th>2,6 m arm</th>
<th>3,0 m arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket radius</td>
<td>mm</td>
<td>1 315</td>
<td>1 315</td>
</tr>
<tr>
<td>Breakout force - bucket (Normal/Power boost)</td>
<td>SAE J1179 kN</td>
<td>99,2 / 105,2</td>
<td>99,2 / 105,2</td>
</tr>
<tr>
<td></td>
<td>ISO 6015</td>
<td>kN</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>111,3 / 118,1</td>
<td>111,3 / 118,1</td>
</tr>
<tr>
<td>Tearout force - arm (Normal/Power boost)</td>
<td>SAE J1179 kN</td>
<td>84,9 / 90,1</td>
<td>75,5 / 80,0</td>
</tr>
<tr>
<td></td>
<td>ISO 6015</td>
<td>kN</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>87,3 / 92,6</td>
<td>77,4 / 82,1</td>
</tr>
<tr>
<td>Rotation angle, bucket</td>
<td>deg.</td>
<td>174</td>
<td>174</td>
</tr>
</tbody>
</table>
Machine with direct fit bucket

<table>
<thead>
<tr>
<th></th>
<th>2,3 m arm</th>
<th>2,6 m arm</th>
<th>3,0 m arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Max. digging reach</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Max. digging reach on ground</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Max. digging depth</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Max. digging depth (2,44 m level)</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Max. vertical wall digging depth</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Max. cutting height</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Max. dumping height</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Min. front slew radius</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Digging forces with direct bucket

<table>
<thead>
<tr>
<th></th>
<th>2,3 m arm</th>
<th>2,6 m arm</th>
<th>3,0 m arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket radius</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breakout force - bucket (Normal/Power boost)</td>
<td>kN</td>
<td>99,2 / 105,2</td>
<td>99,2 / 105,2</td>
</tr>
<tr>
<td>ISO 6015</td>
<td>kN</td>
<td>111,3 / 118,1</td>
<td>111,3 / 118,1</td>
</tr>
<tr>
<td>Tearout force - arm (Normal/Power boost)</td>
<td>kN</td>
<td>84,9 / 90,1</td>
<td>75,5 / 80,0</td>
</tr>
<tr>
<td>ISO 6015</td>
<td>kN</td>
<td>87,3 / 92,6</td>
<td>77,4 / 82,1</td>
</tr>
<tr>
<td>Rotation angle, bucket</td>
<td>deg.</td>
<td>174</td>
<td>174</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Bucket Configuration</th>
<th>Across undercarriage (mm)</th>
<th>Along undercarriage (mm)</th>
<th>1,5 m kg</th>
<th>3,0 m kg</th>
<th>4,5 m kg</th>
<th>6,0 m kg</th>
<th>7,5 m kg</th>
<th>Max. reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom 5,2 m + Arm 2,3 m + Shoe 600 mm + Counterweight 3 200 kg</td>
<td>4,670</td>
<td>7,930</td>
<td>7,980</td>
<td>10,040</td>
<td>8,010</td>
<td>5,310</td>
<td>5,790</td>
<td>3,950</td>
</tr>
<tr>
<td>+1,5 m kg</td>
<td>9,840</td>
<td>9,840</td>
<td>7,930</td>
<td>5,250</td>
<td>5,150</td>
<td>3,530</td>
<td>4,520</td>
<td>3,130</td>
</tr>
<tr>
<td>+3,0 m kg</td>
<td>12,280</td>
<td>10,040</td>
<td>8,010</td>
<td>5,310</td>
<td>5,790</td>
<td>3,950</td>
<td>5,585</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
2. The above loads are in compliance with SAE J1097 and ISO 1057 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.

- **EC180C L**

<table>
<thead>
<tr>
<th>Across undercarriage</th>
<th>Lifting hook related to ground level</th>
<th>1,5 m</th>
<th>3,0 m</th>
<th>4,5 m</th>
<th>6,0 m</th>
<th>7,5 m</th>
<th>Max reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,5 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,660</td>
</tr>
<tr>
<td>6,0 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,800</td>
</tr>
<tr>
<td>4,5 m kg</td>
<td></td>
<td>'7,660</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,640</td>
</tr>
<tr>
<td>3,0 m kg</td>
<td></td>
<td>'8,600</td>
<td>5,760</td>
<td>4,390</td>
<td>3,770</td>
<td></td>
<td>2,810</td>
</tr>
<tr>
<td>1,5 m kg</td>
<td></td>
<td>1,550</td>
<td>5,380</td>
<td>5,160</td>
<td>5,100</td>
<td>3,470</td>
<td>2,470</td>
</tr>
<tr>
<td>0 m kg</td>
<td></td>
<td>1,550</td>
<td>5,380</td>
<td>5,160</td>
<td>5,100</td>
<td>3,470</td>
<td>2,470</td>
</tr>
<tr>
<td>-1,5 m kg</td>
<td></td>
<td>10,600</td>
<td>9,760</td>
<td>8,000</td>
<td>6,560</td>
<td></td>
<td>4,620</td>
</tr>
<tr>
<td>-3,0 m kg</td>
<td></td>
<td></td>
<td>5,270</td>
<td></td>
<td></td>
<td></td>
<td>4,100</td>
</tr>
<tr>
<td>-4,5 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,382</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Along undercarriage</th>
<th>Lifting hook related to ground level</th>
<th>1,5 m</th>
<th>3,0 m</th>
<th>4,5 m</th>
<th>6,0 m</th>
<th>7,5 m</th>
<th>Max reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,5 m kg</td>
<td></td>
<td>'4,790</td>
<td>'4,790</td>
<td></td>
<td></td>
<td></td>
<td>4,350</td>
</tr>
<tr>
<td>6,0 m kg</td>
<td></td>
<td>'5,550</td>
<td>'5,240</td>
<td>'4,290</td>
<td>3,900</td>
<td></td>
<td>3,700</td>
</tr>
<tr>
<td>4,5 m kg</td>
<td></td>
<td>'5,870</td>
<td>'5,870</td>
<td>'6,390</td>
<td>6,210</td>
<td>5,900</td>
<td>3,950</td>
</tr>
<tr>
<td>3,0 m kg</td>
<td></td>
<td>'10,830</td>
<td>10,900</td>
<td>'7,760</td>
<td>5,830</td>
<td>5,470</td>
<td>3,800</td>
</tr>
<tr>
<td>1,5 m kg</td>
<td></td>
<td>8,210</td>
<td>5,450</td>
<td>5,280</td>
<td>3,630</td>
<td>3,800</td>
<td>2,630</td>
</tr>
<tr>
<td>0 m kg</td>
<td></td>
<td>5,630</td>
<td>5,630</td>
<td>7,040</td>
<td>5,220</td>
<td>5,150</td>
<td>3,630</td>
</tr>
<tr>
<td>-1,5 m kg</td>
<td></td>
<td>'3,970</td>
<td>'3,970</td>
<td>'7,860</td>
<td>5,150</td>
<td>5,100</td>
<td>3,470</td>
</tr>
<tr>
<td>-3,0 m kg</td>
<td></td>
<td></td>
<td>5,220</td>
<td></td>
<td></td>
<td></td>
<td>3,960</td>
</tr>
<tr>
<td>-4,5 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,660</td>
</tr>
</tbody>
</table>

2-piece boom 5,0 m +
Arm 2,3 m +
Shoe 600 mm +
Counterweight 3 200 kg

<table>
<thead>
<tr>
<th>Across undercarriage</th>
<th>Lifting hook related to ground level</th>
<th>1,5 m</th>
<th>3,0 m</th>
<th>4,5 m</th>
<th>6,0 m</th>
<th>7,5 m</th>
<th>Max reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,5 m kg</td>
<td></td>
<td>'4,650</td>
<td>'4,650</td>
<td></td>
<td></td>
<td></td>
<td>3,600</td>
</tr>
<tr>
<td>6,0 m kg</td>
<td></td>
<td>'4,680</td>
<td>'4,680</td>
<td>'4,340</td>
<td>4,010</td>
<td></td>
<td>3,200</td>
</tr>
<tr>
<td>4,5 m kg</td>
<td></td>
<td>'5,410</td>
<td>'5,410</td>
<td>'5,100</td>
<td>3,940</td>
<td></td>
<td>2,870</td>
</tr>
<tr>
<td>3,0 m kg</td>
<td></td>
<td>'10,840</td>
<td>'10,840</td>
<td>'7,360</td>
<td>5,850</td>
<td>5,450</td>
<td>3,780</td>
</tr>
<tr>
<td>1,5 m kg</td>
<td></td>
<td>'6,320</td>
<td>'6,320</td>
<td>'8,190</td>
<td>5,430</td>
<td>5,250</td>
<td>3,590</td>
</tr>
<tr>
<td>0 m kg</td>
<td></td>
<td>'6,050</td>
<td>'6,050</td>
<td>'7,870</td>
<td>5,150</td>
<td>5,090</td>
<td>3,450</td>
</tr>
<tr>
<td>-1,5 m kg</td>
<td></td>
<td>'3,010</td>
<td>'3,010</td>
<td>'7,740</td>
<td>5,040</td>
<td>5,010</td>
<td>3,380</td>
</tr>
<tr>
<td>-3,0 m kg</td>
<td></td>
<td>'8,900</td>
<td>'8,900</td>
<td>'6,580</td>
<td>5,080</td>
<td></td>
<td>3,420</td>
</tr>
<tr>
<td>-4,5 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,350</td>
</tr>
</tbody>
</table>

2-piece boom 5,0 m +
Arm 2,5 m +
Shoe 600 mm +
Counterweight 3 200 kg

<table>
<thead>
<tr>
<th>Across undercarriage</th>
<th>Lifting hook related to ground level</th>
<th>1,5 m</th>
<th>3,0 m</th>
<th>4,5 m</th>
<th>6,0 m</th>
<th>7,5 m</th>
<th>Max reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,5 m kg</td>
<td></td>
<td>'4,650</td>
<td>'4,650</td>
<td></td>
<td></td>
<td></td>
<td>3,600</td>
</tr>
<tr>
<td>6,0 m kg</td>
<td></td>
<td>'4,680</td>
<td>'4,680</td>
<td>'4,340</td>
<td>4,010</td>
<td></td>
<td>3,200</td>
</tr>
<tr>
<td>4,5 m kg</td>
<td></td>
<td>'5,410</td>
<td>'5,410</td>
<td>'5,100</td>
<td>3,940</td>
<td></td>
<td>2,870</td>
</tr>
<tr>
<td>3,0 m kg</td>
<td></td>
<td>'10,840</td>
<td>'10,840</td>
<td>'7,360</td>
<td>5,850</td>
<td>5,450</td>
<td>3,780</td>
</tr>
<tr>
<td>1,5 m kg</td>
<td></td>
<td>'6,320</td>
<td>'6,320</td>
<td>'8,190</td>
<td>5,430</td>
<td>5,250</td>
<td>3,590</td>
</tr>
<tr>
<td>0 m kg</td>
<td></td>
<td>'6,050</td>
<td>'6,050</td>
<td>'7,870</td>
<td>5,150</td>
<td>5,090</td>
<td>3,450</td>
</tr>
<tr>
<td>-1,5 m kg</td>
<td></td>
<td>'3,010</td>
<td>'3,010</td>
<td>'7,740</td>
<td>5,040</td>
<td>5,010</td>
<td>3,380</td>
</tr>
<tr>
<td>-3,0 m kg</td>
<td></td>
<td>'8,900</td>
<td>'8,900</td>
<td>'6,580</td>
<td>5,080</td>
<td></td>
<td>3,420</td>
</tr>
<tr>
<td>-4,5 m kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,350</td>
</tr>
</tbody>
</table>

Notes:
1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities.
2. The above loads are in compliance with SAE J1097 and ISO 1057 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
3-stage air filter with indicator and precleaner
Air intake heater
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
Engine restart prevention circuit
High-capacity halogen lights:
  - Frame-mounted 2
  - Boom-mounted 2
Batteries, 2 x 12 V / 140 Ah
Start motor, 24 V / 4,8 kW

Hydraulic system
Hose rupture valve: boom
Automatic sensing hydraulic system
  - Summation system
  - Boom priority
  - Arm priority
  - Slew priority
Boom, arm and bucket regeneration valves
Slew 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

Superstructure
Access way with handrail
Full height counterweight: 3 200 kg
Tool storage area
Punched metal anti-slip plates
Undercover (heavy-duty 4,5 mm)

Cab and interior
Fabric seat with heater and air suspension
Control joysticks with 4 switches each
Heater & air-conditioner, automatic
Hydraulic damping cab mounts
Adjustable operator seat and joystick control console
Flexible antenna
Hydraulic safety lock lever
Cab, all-weather sound suppressed, includes:
  - Ashtray
  - Cup holder (X3)
  - Lighter
  - 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
  - Rain shield
  - Windshield wiper with intermittent feature
Anti-vandalism kit assembly preparation
Master ignition key

Undercarriage
Hydraulic track adjusters
Greased and sealed track chain
Track guide
Undercover (heavy-duty 10 mm)

Track shoes
Track shoes 600 mm with triple grousers

Digging equipment
Boom: 5,2 m monoblock
Arm: 2,6 m
Centralized lubrication

Service
Tool kit, daily maintenance

OPTIONAL EQUIPMENT

Engine
Block heater: 120 V, 240 V
Oil bath pre-cleaner
Diesel driven coolant heater
Water separator with heater

Electric
Extra lamps:
  - Cab-mounted 1
  - Counterweight-mounted 1
Travel alarm
Anti-theft system
Overload warning device
Rotating warning beacon

Hydraulic system
Hose rupture valve: arm
Automatic sensing hydraulic system
  - Summation system
  - Boom priority
  - Arm priority
  - Slew priority
Boom, arm and bucket regeneration valves
Slew 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 32
Hydraulic oil, ISO VG 8
Hydraulic oil, biodegradable 32
Hydraulic oil, biodegradable 46

Cab and interior
Fabric seat
Fabric seat with heater
Control joystick with semi-long levers
Control joystick with proportional control
Falling object guard (FOG)
  - Cab-mounted
  - Cab-mounted falling object protective structure (FOPS)
Screen guard for front window
Sunlight protection, roof (steel)
Lower wiper with intermittent control
Anti-vandalism kit
Specific key
Rear view camera

Undercarriage
Full track guard

Digging equipment
Boom: 5,0 m 2-piece
Arm: 2,3 / 3,0 m

Service
Tool kit, full scale
Volvo Construction Equipment is different. It’s designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 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.**