

VOLVO EXCAVATOR

EC700CL

150,575 – 155,650 lb, 424 hp



MORE CARE. BUILT IN.



ALL WORK. ALL THE TIME.

[MORE PROFIT.]

- **Powerful Volvo V-ACT engine:** efficiently moves more tons per hour.
- **Industry-leading fuel efficiency.**
- **The digging reach, depth and capacity** to stretch your productivity further.
- **Advanced hydraulic system** is well matched for efficient, smooth control.
- **Excellent lifting capacity** – to pull out of the pile with no hesitation.
- **Volvo quick fit:** easy attachment change out for greater versatility.

[MORE SAFETY.]

- **Superior balance and stability** for peace of mind in any terrain.
- **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.**
- **Lead-free exterior paint** is in harmony with the environment.





[MORE COMFORT.]

- **New larger, more comfortable cab** puts you in command.
- **Roomy, adjustable seat** supports your whole body.
- **Improved noise insulation** helps keep the noise out and the fatigue away.
- **Vibration dampening:** reduced whole body vibration and fatigue.
- **High-capacity climate control system.**



[MORE UPTIME.]

- **Large, easy-opening service panels** for safe, complete access.
- **Easy access, centralized lubrication points.**
- **In-cab monitoring** through the easy-to-read, **color LCD monitor.**
- **Easy to learn. Easy to operate. Easy to get more done.**

[MORE QUALITY.]

- **Heavy-duty boom and arm:** reliability and strength for difficult jobs.
- **Strong undercarriage frame:** endures daily abuse.
- **Reinforced boom/arm and proven components** deliver every time.
- **Reinforced superstructure:** double welded stress points.
- **Lifetime greased, sealed track chain** prevents leaks and guarantees long life.

VOLVO – A PARTNER TO TRUST.

Big. Size alone won't get the job done. You have to back it up with production – every day. When the job is big, look to the excavator that does it all bigger, faster and stronger. The 70-ton Volvo EC700C will make you think it's in the 80-ton class. That's because it's built like it. Get to work in the machine that will be your money-making partner for a long time.

Volvo: your global, local partner

- Complete solutions since 1927.
- Built on the core values of quality, safety and environmental care.
- Construction equipment, commercial transport, buses, trucks and more.
- Global expertise: development of engines with leading fuel efficiency.

Top of its class

- The 70-ton excavator with key features found in the 80-ton class.
- Perfectly matched for quick, 40-ton articulated hauler loading – in four to six passes.
- Optimized operations by electronic control – balancing available engine and hydraulic power to conditions.

Big on production

- Tear away more material – faster and easier.
- Fast cycles mean more tons moved on every shift.
- Stout stability from wide-gauge tracks and heavy-duty counterweight.

Comfortably work longer

- Maximum performance you need with the efficiency, comfort and safety you expect from Volvo.
- Climate-controlled cab keeps you fresh, alert and focused – longer.
- Well-placed instruments and clear, all-around visibility.

Built to work for you

- Flexibility to handle a wide range of materials in a wide range of applications.
- Choose the work tools, boom/arm configuration and track shoes for your work.
- The leader on the jobsite: production trenching, mass excavation, quarry loading, rock-face stripping, mining, high-demand earthmoving, material-loading jobs and more.



• Volvo: the name you can trust for quality.



• Reinforced boom/arm handles all the jobs.

• Intelligent command means greater profits.

• Well-positioned monitor and controls.



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.



BUILT TO LEAVE NO WORK BEHIND.

You might not have to move mountains – but it's nice to know you can. The Volvo EC700C has all the power you need, plus perfectly harmonized hydraulics to make the most difficult material quickly go wherever you want. Mass excavation. Production trenching. Rock-face stripping. Mine loading. The list goes on and on. Just like the Volvo EC700C.

Quality for the long haul

- Built with quality – through and through – from boom to counterweight.
- Loaded with proven, extra-duty components.
- Main pump, swing motor, bearing/ track rollers and other key components live up to 80-ton class standards.
- Larger-diameter swing bearing provides smooth action and dependable, long life.

A reinforced force to behold

- Extra-duty undercarriage provides solid footing.
- Wide track gauge and an extra-heavy counterweight.
- Reinforced under-cover protects the high tensile-strength steel undercarriage and superstructure.
- Robotically-welded frame stands up to brutal stresses.
- Boom and arm is robotically welded and engineered for durability.

Power to tear through the work

- Powerful Volvo engine delivers high torque even at low RPMs.
- Class-leading power: 316 kW, **424 hp**.
- Harmonized engine and hydraulics for smooth, responsive digging and lifting.
- High breakout forces, crowding forces and swing speed.
- Quicker cycle times. More tons loaded. Faster job completion.





• More care built in through quality



• Lifetime greased and sealed track chain.



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



WHERE YOU WANT TO BE – ALL DAY LONG.

Volvo values the environment. Yours and ours. The Volvo EC700C is proof. The rock-solid exterior features a comfortable interior that helps you share the fatigue-free, work-all-day feeling your machine has. Safety and care is also covered inside and out. For you. For those working around you. For those living around you.

Your comfort zone

- Adjustable seat puts any size operator at ease.
- Ergonomic, low-effort controls/levers put all functions easily within reach.
- High-capacity climate control system: comfortable in all weather.
- Fine-particle air filtration: keeps dust away from the operator and electronics.

Volvo views safety as a priority

- Clear, all-around visibility from expansive glass and a thin front-window crossbar.
- Cab entry and exit is easier from wide access steps and sturdy hand rails.
- Sure grip step below the fuel port helps keep you anchored when refueling.
- Long, wide-gauge tracks, an extra-duty undercarriage and heavy counterweight provide sure-footed stability.

Environmental care

- Volvo Advanced Combustion Technology (V-ACT) engine provides low emissions.
- Robust cab suspension mounts suppress noise and dampen vibration.





• Greater floor space with ergonomic pedals.



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



• Safe, anti-slip steps and platforms.



INTELLIGENT DESIGN. SMART CHOICE.

Hard at work. Easy to keep running. Volvo dealer support built in around you. That is the Volvo EC700C way. You have less to worry about. Just the job in your sight and the profits in your pocket. It's the smart way to work. Do a quick check. Close the door. Turn the key and go to it.

Service your uptime

- Punched-plate, anti-slip walkways make machine checks safe and easy.
- Filters and components are conveniently located for quick replacement.
- Plenty of space and access to major components such as the main pump.
- In-cab diagnostic monitoring.
- Micro-particle filtration keeps the engine, hydraulics and electronics free from contaminants.

Your Volvo machine. Your Volvo dealer. The support you need:

VCADS at your service

- Optional computerized monitoring and diagnostics program.
- The perfect tool for the service technician.
- Makes troubleshooting diagnosis quick and accurate.

MATRIS gives you a full report

- Detailed operating history analysis, utilization and efficiency.
- Turns the data captured inside the machine's computer into easy-to-use graphs and reports.
- Check operating techniques, reduce maintenance costs and increase service life.

PROSIS makes parts ordering faster

- CD-ROM application makes it quick and easy for your dealer to order all your parts.
- Your dealer helps you find the right part and place your order to get you up and running fast.





• Simplified, centralized lubrication points.



• Easy access to hydraulic pumps and filters.



• Volvo is the partner you can grow with.



IT'S YOUR WORK. IT'S YOUR CHOICE.

Make your Volvo Excavator just right for you and your work. To customize your excavator with other optional equipment features to suit your application, contact your local Volvo dealer.

Hydraulic kits

A wide variety of hydraulic kits is 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.

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.

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-suspension models, provide excellent support and are individually adjustable to suit operator preferences.

Straight travel pedal

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

Full-length derailing shield

Keeps the track chain straight in uneven terrain, such as slopes and blasted rock – helping to avoid wear and extend life. The track chain is the most expensive wear part to replace, meaning the full-length derailing shield helps increase customer profit through lower repair costs.

Rear view camera

For improved safety on the jobsite, 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.

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.

CareTrack

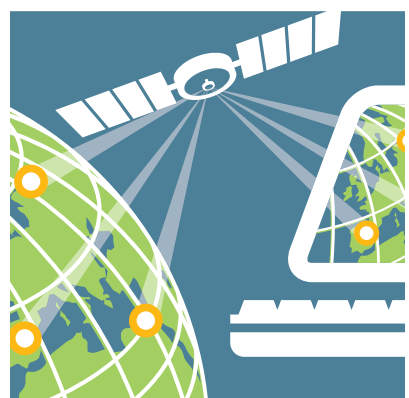
GPS monitoring program that works with the machine's diagnostic system. Allows the owner and dealer to remotely track usage, productivity, fuel consumption and more. Maximizes uptime through important service reminders. Also monitors geographic machine location and can even prevent unauthorized use.

Hydraulic quick fit

A Volvo hydraulic quick fit makes changing attachments quick and easy – all from the comfort and safety of the cab. Different Volvo quick fit types are available to fit new and existing customers' buckets/ attachments.



VOLVO OPTIONAL EQUIPMENT



Hydraulic kits

**Diesel-driven engine
coolant heater**

FOG and FOPS cab protection

Operator seats

Straight travel pedal

Full-length derailing shield

Rear view camera

**Wrist control joysticks -
proportional control**

CareTrack

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.

SPECIFICATIONS

Engine

The 4-stroke Volvo diesel engine with water cooling has been specifically developed for excavator use to deliver low emissions, good fuel efficiency, long service life and superior performance. The EPA Tier 3 compliant engine uses turbocharged air-to-air intercooling and direct injection electronic engine controls. The automatic idling system reduces the engine speed to idle when no machine functions are activated, resulting in lower fuel consumption and lower cab noise levels.

Engine	Volvo D16E EAE3	
Max. power, at	30 r/s	1,800 r/min
Net (ISO 9249, SAE J1349)	316 kW	424 hp
Gross (SAE J1995)	346 kW	464 hp
Max. torque at 1 350 r/min	2,250 Nm	1,660 lb.ft
No. of cylinders	6	
Displacement	16.1 l	982 cu.in
Bore	144 mm	5.67"
Stroke	165 mm	6.50"

Electrical system

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. The master switch is standard.

Contronics provides advanced monitoring of machine functions and important diagnostic information.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	225 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	840 l	222 gal
Hydraulic system, total	655 l	173 gal
Hydraulic tank	350 l	92 gal
Engine oil	52 l	13 gal
Engine coolant	65 l	17 gal
Swing reduction unit	2 x 6 l	2 x 1.6 gal
Travel reduction unit	2 x 20 l	2 x 5.3 gal

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	6.7 r/min
Max. swing torque	23.1 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	453 kN	101,830 lb
Max. travel speed	3.0/4.6 km/h	1.9/2.9 mph
Gradeability	35°	70%

Undercarriage

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

Track pads	2 x 48
Link pitch	260.4 mm 10.3"
Shoe width, double grouser	650/750/900 mm 26"/30"/36"
Bottom rollers	2 x 8
Top rollers	2 x 3

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 436 l/min **2 x 115 gpm**

Pilot pump:

Type: Gear pump
Maximum flow: 27.4 l/min **7.2 gpm**

Hydraulic motors:

Travel: Variable displacement axial piston motor with mechanical brake

Swing: Fixed displacement piston motor with mechanical brake

Relief valve setting:

Implement 31.4/34.3 MPa
..... **4,550/4,980 psi**
Travel circuit 34.3 MPa **4,980 psi**
Swing circuit 25.5 MPa **3,700 psi**
Pilot circuit 3.9 MPa **570 psi**

Hydraulic cylinders:

Boom 2
Bore x Stroke ø190 x 1,790 mm
..... **ø7.5 x 70.5"**
Arm 1
Bore x Stroke ø215 x 2,070 mm
..... **ø8.5 x 81.5"**
Bucket 1
Bore x Stroke ø190 x 1,450 mm
..... **ø7.5 x 57.1"**
ME Bucket 1
Bore x Stroke ø200 x 1,450 mm
..... **ø7.8 x 57.1"**

Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

Integrated air-conditioning and heating system: The pressurized and filtered cab air is supplied by an automatically controlled fan. The air is distributed throughout the cab from 14 vents. Ergonomic operator's seat: The adjustable seat and joystick console move independently to accommodate the operator. The seat has nine different adjustments plus a seat belt for the operator's comfort and safety.

Sound Level:

Sound level in cab according to ISO 6396
..... LpA 72 dB(A)

External sound level according to ISO 6395 and EU Directive 2000/14/EC
..... LwA 107 dB(A)

Ground pressure

• **EC700CL** with 6.6 m, **21' 8" boom**, 2.9 m, **9' 6" arm**, 3,730 kg, **8,220 lb bucket**, 11,300 kg, **24,920 lb counterweight**

Description	Shoe width	Operating weight	Ground pressure	Overall width
Double grouser	650 mm, 26"	69,800 kg, 153,890 lb	101.5 kPa, 14.7 psi	4,095 mm, 13' 5"
	750 mm, 30"	70,500 kg, 155,425 lb	88.9 kPa, 12.9 psi	4,100 mm, 13' 6"
	900 mm, 36"	71,700 kg, 158,070 lb	75.3 kPa, 10.9 psi	4,250 mm, 13' 11"

• **EC700CL** with 7.7 m, **25' 3" boom**, 3.55 m, **11' 8" arm**, 2,800 kg, **6,170 lb bucket**, 11,300 kg, **24,920 lb counterweight**

Description	Shoe width	Operating weight	Ground pressure	Overall width
Double grouser	650 mm, 26"	69,300 kg, 150,600 lb	100.8 kPa, 14.6 psi	4,095 mm, 13' 5"
	750 mm, 30"	69,000 kg, 152,150 lb	88.2 kPa, 12.8 psi	4,100 mm, 13' 6"
	900 mm, 36"	70,000 kg, 154,350 lb	74.6 kPa, 10.8 psi	4,250 mm, 13' 11"

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.

4. LU: Light Utility

5. GP: General Purpose, Excavation, Trenching

6. HD: Heavy Duty, Heavy Excavation, Heavy Trenching

7. RL: Rock Loading

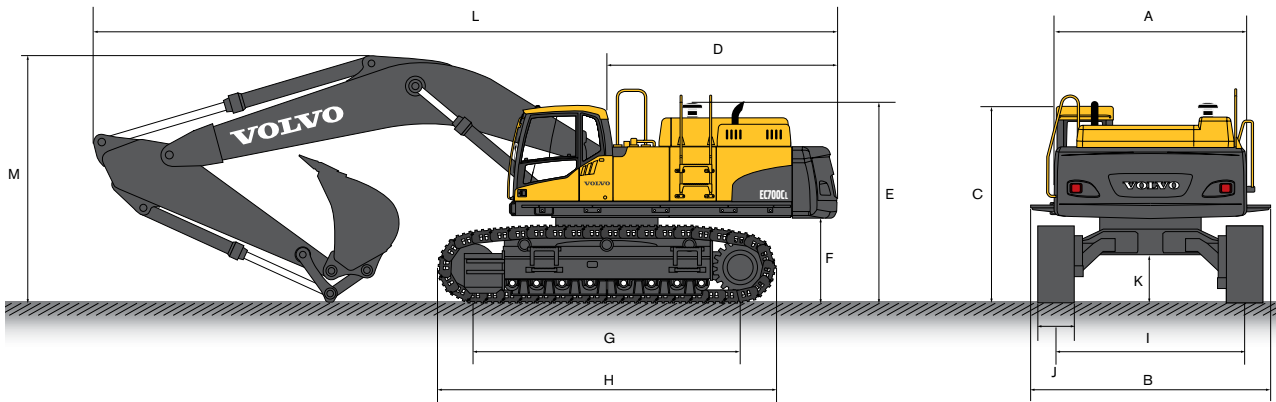
• **EC700CL** with 650 mm, **26" shoe**, 11,300 kg, **24,920 lb counterweight**

Description	Max. bucket volume / weight	6.6 m, 21' 8" boom		7.7 m, 25' 3" boom	
		2.9 m, 9' 6" arm	2.9 m, 9' 6" arm	3.55 m, 11' 8" arm	4.2 m, 13' 9" arm
LU bucket 1.2 t/m ³ , 2,020 lb/yd³	l, yd ³ / kg, lb	6,600, 8.63 / 4,250, 9,370	5,300, 6.93 / 3,400, 7,500	4,925, 6.44 / 3,200, 7,050	4,450, 5.82 / 2,850, 6,280
LU bucket 1.5 t/m ³ , 2,530 lb/yd³	l, yd ³ / kg, lb	5,675, 7.42 / 3,650, 8,050	4,550, 5.95 / 2,950, 6,500	4,225, 5.53 / 2,700, 5,950	3,825, 5.00 / 2,450, 5,400
GP bucket 1.3 t/m ³ , 2,190 lb/yd³	l, yd ³ / kg, lb	5,675, 7.42 / 5,150, 11,350	4,550, 5.95 / 3,850, 8,490	4,225, 5.53 / 3,600, 7,940	3,825, 5.00 / 3,250, 7,160
GP bucket 1.5 t/m ³ , 2,530 lb/yd³	l, yd ³ / kg, lb	5,200, 6.80 / 4,400, 9,700	4,175, 5.46 / 3,500, 7,720	3,875, 5.07 / 3,250, 7,160	3,500, 4.58 / 2,950, 6,500
GP bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	4,600, 6.02 / 3,900, 8,600	3,700, 4.84 / 3,100, 6,830	3,425, 4.48 / 2,900, 6,390	3,100, 4.05 / 2,600, 5,730
HD bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	4,350, 5.69 / 4,350, 9,590	3,500, 4.58 / 3,500, 7,720	3,250, 4.25 / 3,250, 7,160	2,925, 3.83 / 2,900, 6,390
HD bucket 2.0 t/m ³ , 3,370 lb/yd³	l, yd ³ / kg, lb	4,075, 5.33 / 4,050, 8,930	3,275, 4.28 / 3,250, 7,160	3,025, 3.96 / 3,000, 6,610	2,725, 3.56 / 2,700, 5,950
RL bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	3,925, 5.13 / 5,100, 11,240	3,150, 4.12 / 4,050, 8,930	2,925, 3.83 / 3,800, 8,380	2,650, 3.47 / 3,400, 7,500
RL bucket 2.0 t/m ³ , 3,370 lb/yd³	l, yd ³ / kg, lb	3,700, 4.84 / 4,800, 10,580	2,975, 3.89 / 3,850, 8,490	2,750, 3.60 / 3,550, 7,830	2,475, 3.24 / 3,200, 7,050
Max. permitted bucket width	mm, ft-in	2,100, 6' 11"	2,000, 6' 7"	2,000, 6' 7"	2,000, 6' 7"

• **EC700CL** with 900 mm, **36" shoe**, 11,300 kg, **24,920 lb counterweight**

Description	Max. bucket volume / weight	7.7 m, 25' 3" boom			
		2.9 m, 9' 6" arm	3.55 m, 11' 8" arm	4.2 m, 13' 9" arm	5.2 m, 17' 1" arm
LU bucket 1.2 t/m ³ , 2,020 lb/yd³	l, yd ³ / kg, lb	5,875, 7.68 / 3,050, 6,720	5,450, 7.13 / 2,950, 6,500	4,900, 6.40 / 2,600, 5,730	-
LU bucket 1.5 t/m ³ , 2,530 lb/yd³	l, yd ³ / kg, lb	5,050, 6.61 / 2,550, 5,620	4,675, 6.11 / 2,450, 5,400	4,225, 5.53 / 2,150, 4,740	-
GP bucket 1.3 t/m ³ , 2,190 lb/yd³	l, yd ³ / kg, lb	5,050, 6.61 / 3,550, 7,830	4,675, 6.11 / 3,400, 7,500	4,225, 5.53 / 3,000, 6,610	3,400, 4.45 / 2,750, 6,060
GP bucket 1.5 t/m ³ , 2,530 lb/yd³	l, yd ³ / kg, lb	4,625, 6.80 / 3,200, 7,050	4,275, 5.59 / 3,050, 6,720	3,875, 5.07 / 2,650, 5,840	3,100, 4.05 / 2,500, 5,510
GP bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	4,100, 5.36 / 2,750, 6,060	3,800, 4.97 / 2,650, 5,840	3,425, 4.48 / 2,300, 5,070	2,750, 3.60 / 2,200, 4,850
HD bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	3,875, 5.07 / 3,150, 6,940	3,600, 4.71 / 3,000, 6,610	3,250, 4.25 / 2,600, 5,730	2,600, 3.40 / 2,500, 5,510
HD bucket 2.0 t/m ³ , 3,370 lb/yd³	l, yd ³ / kg, lb	3,625, 4.74 / 2,850, 6,280	3,350, 4.38 / 2,750, 6,060	3,025, 3.96 / 2,400, 5,290	2,425, 3.17 / 2,300, 5,070
RL bucket 1.8 t/m ³ , 3,030 lb/yd³	l, yd ³ / kg, lb	3,500, 4.58 / 3,800, 8,380	3,250, 4.25 / 3,600, 7,940	2,925, 3.83 / 3,200, 7,050	-
RL bucket 2.0 t/m ³ , 3,370 lb/yd³	l, yd ³ / kg, lb	3,275, 4.28 / 3,550, 7,830	3,050, 3.99 / 3,350, 7,390	2,750, 3.60 / 2,950, 6,500	-
Max. permitted bucket width	mm, ft-in	2,000, 6' 7"	2,000, 6' 7"	2,000, 6' 7"	2,000, 6' 7"

Dimensions

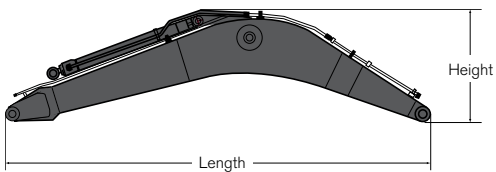


• EC700CL with 650 mm, 26" shoe, 11,300 kg, 24,920 lb counterweight

Description		6.6 m, 21' 8" boom		7.7 m, 25' 3" boom	
		2.9 m, 9' 6" arm	2.9 m, 9' 6" arm	3.55 m, 11' 8" arm	4.2 m, 13' 9" arm
A. Overall width of upper structure	mm, ft-in	3,420, 11' 3"	3,420, 11' 3"	3,420, 11' 3"	3,420, 11' 3"
B. Overall width	mm, ft-in	4,286, 14' 1"	4,286, 14' 1"	4,286, 14' 1"	4,286, 14' 1"
C. Overall height of cab	mm, ft-in	3,520, 11' 6"	3,520, 11' 6"	3,520, 11' 6"	3,520, 11' 6"
D. Tail swing radius	mm, ft-in	4,090, 13' 5"	4,090, 13' 5"	4,090, 13' 5"	4,090, 13' 5"
E. Overall height of engine hood	mm, ft-in	3,590, 11' 10"	3,590, 11' 10"	3,590, 11' 10"	3,590, 11' 10"
F. Counterweight clearance *	mm, ft-in	1,507, 4' 11"	1,507, 4' 11"	1,507, 4' 11"	1,507, 4' 11"
G. Tumbler length	mm, ft-in	4,750, 15' 7"	4,750, 15' 7"	4,750, 15' 7"	4,750, 15' 7"
H. Track length	mm, ft-in	5,990, 19' 8"	5,990, 19' 8"	5,990, 19' 8"	5,990, 19' 8"
I. Track gauge (extended)	mm, ft-in	3,350, 11' 0"	3,350, 11' 0"	3,350, 11' 0"	3,350, 11' 0"
Track gauge (retracted)	mm, ft-in	2,750, 9' 0"	2,750, 9' 0"	2,750, 9' 0"	2,750, 9' 0"
J. Shoe width	mm, ft-in	650, 26"	650, 26"	650, 26"	650, 26"
K. Min. ground clearance *	mm, ft-in	858, 2' 10"	858, 2' 10"	858, 2' 10"	858, 2' 10"
L. Overall length	mm, ft-in	12,200, 40' 0"	13,320, 43' 8"	13,220, 43' 5"	13,170, 43' 2"
M. Overall height of boom	mm, ft-in	4,855, 15' 11"	4,660, 15' 0"	4,600, 15' 1"	4,950, 16' 2"

* Without shoe grouser

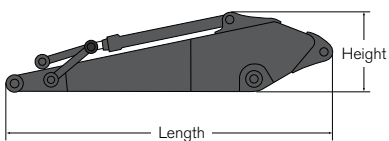
• Boom



Description		6.6 m, 21' 8"	7.7 m, 25' 3"
Length	mm, ft-in	6,890, 22' 7"	8,020, 26' 4"
Height	mm, ft-in	2,530, 8' 4"	1,970, 6' 6"
Width	mm, ft-in	1,110, 3' 7"	1,110, 3' 7"
Weight	kg, lb	6,550, 14,440	6,900, 15,210

* Includes arm cylinder, piping and pin

• Arm

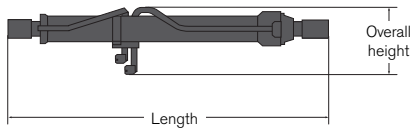


Description		2.9 m, 9' 6"	3.55 m, 11' 8"	4.2 m, 13' 9"	5.2 m, 17' 1"
Length	mm, ft-in	4,260, 14' 0"	4,940, 16' 2"	5,590, 18' 4"	6,590, 21' 8"
Height	mm, ft-in	1,530, 5' 0"	1,390, 4' 11"	1,390, 4' 11"	1,430, 4' 8"
Width	mm, ft-in	740, 2' 5"	740, 2' 5"	740, 2' 5"	740, 2' 5"
Weight	kg, lb	3,510, 7,740	3,670, 8,090	3,900, 8,600	4,250, 9,390

* Includes bucket cylinder, linkage and pin

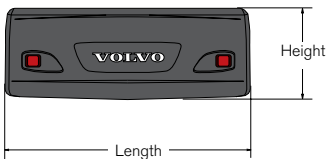
Dimensions

• Cylinder



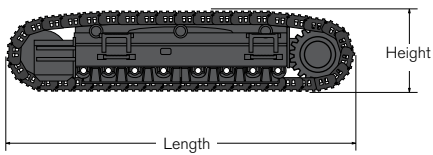
Length	Height	Width	Weight
2,765 mm 9' 1"	560 mm 1' 10"	370 mm 1' 3"	540 kg x 2 set = 1,080 kg 1,190 lb x 2 set = 2,380

• Counterweight



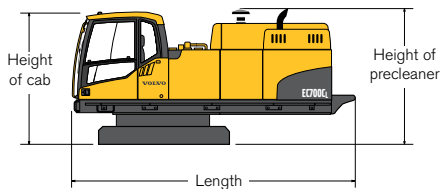
Length	Height	Width	Weight
3,420 mm 11' 3"	1,280 mm 4' 2"	800 mm 2' 8"	11,400 kg 25,130 lb

• Shoes



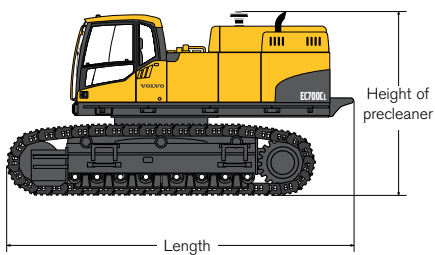
Shoe width	Length	Height	Overall width	Weight / unit
650 mm 26"	5,990 mm 19' 8"	1,375 mm 4' 6"	700 mm 2' 4"	10,400 kg 22,930 lb
750 mm 30"	5,990 mm 19' 8"	1,375 mm 4' 6"	750 mm 2' 6"	10,750 kg 23,700 lb
900 mm 36"	5,990 mm 19' 8"	1,375 mm 4' 6"	900 mm 2' 11"	11,250 kg 24,800 lb

• Cab



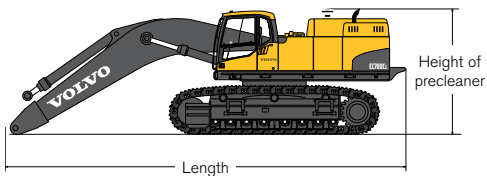
Length	Height of cab	Height of precleaner	Width	Weight
5,500 mm 18' 1"	2,655 mm 8' 9"	2,735 mm 9' 0"	3,430 mm 11' 3"	21,700 kg 47,840 lb

• Cab with shoes



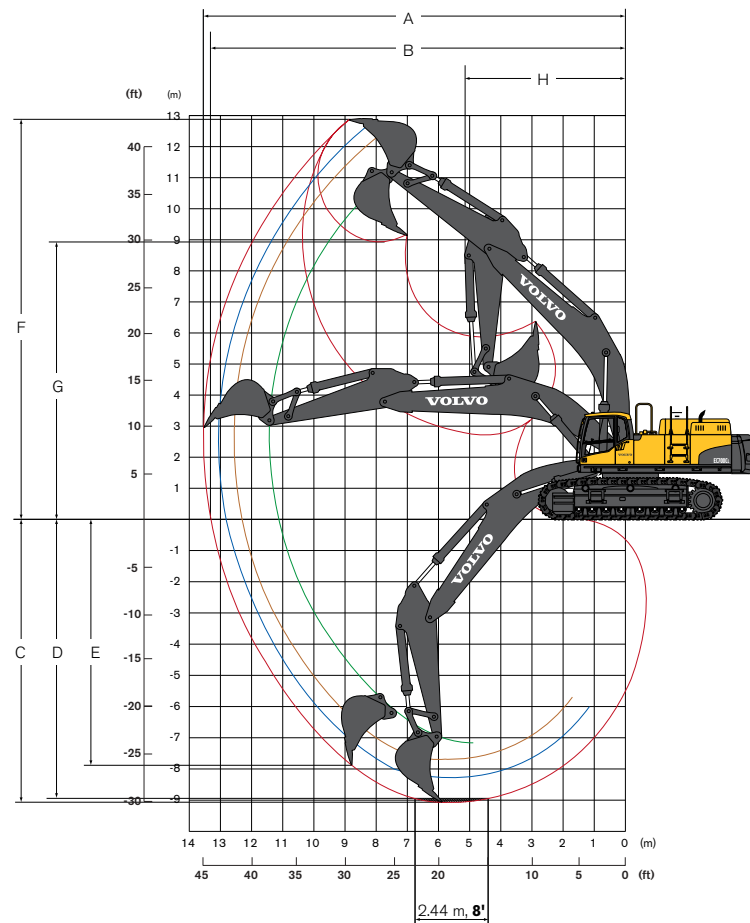
Shoe width	Length	Height of precleaner	Overall width (retracted)	Weight
650 mm 26"	6,730 mm 22' 1"	3,590 mm 11' 9"	3,520 mm 11' 6"	44,500 kg 98,100 lb
750 mm 30"	6,730 mm 22' 1"	3,590 mm 11' 9"	3,520 mm 11' 6"	44,500 kg 98,100 lb
900 mm 36"	6,730 mm 22' 1"	3,590 mm 11' 9"	3,520 mm 11' 6"	44,500 kg 98,100 lb

• Cab with shoes and boom



Boom	Shoe width	Length	Height of precleaner	Overall width (retracted)	Weight
6.6 m 21' 8"	650 mm 26"	10,140 mm 33' 3"	3,590 mm 11' 9"	3,495 mm 11' 6"	50,550 kg 111,440 lb
	750 mm 30"	10,140 mm 33' 3"	3,590 mm 11' 9"	3,595 mm 11' 10"	51,250 kg 112,990 lb
	900 mm 36"	10,140 mm 33' 3"	3,590 mm 11' 9"	3,745 mm 12' 3"	52,250 kg 115,190 lb
7.7 m 25' 3"	650 mm 26"	11,280 mm 37' 0"	3,590 mm 11' 9"	3,495 mm 11' 6"	50,900 kg 112,210
	750 mm 30"	11,280 mm 37' 0"	3,590 mm 11' 9"	3,595 mm 11' 10"	51,600 kg 113,760 lb
	900 mm 36"	11,280 mm 37' 0"	3,590 mm 11' 9"	3,745 mm 12' 3"	52,600 kg 115,960 lb

Working ranges & digging force



• EC700CL

Machine with direct fit bucket			6.6 m, 21' 8"	7.7 m, 25' 3"		
			2.9 m, 9' 6"	2.9 m, 9' 6"	3.55 m, 11' 8"	5.2 m, 17' 1"
A. Max. digging reach	mm, ft-in		11,500, 37' 9"	12,600, 41' 3"	13,170, 43' 3"	14,730, 48' 4"
B. Max. digging reach on ground	mm, ft-in		11,200, 36' 9"	12,335, 40' 6"	12,910, 42' 4"	14,500, 47' 7"
C. Max. digging depth	mm, ft-in		7,250, 23' 9"	7,755, 25' 4"	8,400, 27' 7"	10,055, 33' 0"
D. Max. digging depth (8' level)	mm, ft-in		7,100, 23' 4"	7,605, 25' 0"	8,270, 27' 7"	9,950, 32' 8"
E. Max. vertical wall digging depth	mm, ft-in		5,065, 16' 7"	6,780, 22' 2"	7,250, 23' 9"	8,790, 28' 10"
F. Max. cutting height	mm, ft-in		10,980, 36' 0"	12,490, 41' 0"	12,620, 41' 5"	13,420, 44' 0"
G. Max. dumping height	mm, ft-in		6,960, 22' 9"	8,410, 27' 7"	8,610, 28' 2"	9,400, 30' 10"
H. Min. front swing radius	mm, ft-in		5,160, 16' 11"	5,480, 18' 10"	5,410, 17' 10"	5,560, 18' 3"

Digging forces with direct fit bucket			6.6 m, 21' 8"	7.7 m, 25' 3"		
			2.9 m, 9' 6"	2.9 m, 9' 6"	3.55 m, 11' 8"	5.2 m, 17' 1"
Bucket radius	mm, ft-in		2,215, 7' 3"	2,150, 7' 1"	2,150, 7' 1"	2,150, 7' 1"
Breakout force - bucket (Normal/Power boost)	ISO 6015	kN lb	342 / 374 76,880 / 84,075	326 / 356 73,285 / 80,030	326 / 356 73,285 / 80,030	326 / 356 73,285 / 80,030
Tearout force - arm (Normal/Power boost)	ISO 6015	kN lb	298 / 326 66,990 / 73,286	303 / 332 68,115 / 74,630	265 / 290 59,570 / 65,190	236 / 258 53,050 / 58,000
Rotation angle, bucket	deg.		172	173	173	173

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.

• EC700CL

 Across undercarriage  Along undercarriage	Lifting hook related to ground level	4.5 m, 15'				6.0 m, 20'				7.5 m, 25'				9.0 m, 30'				10.5 m, 35'				Max. reach			
																								Max. m/ft	
		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb		
Boom 6.6 m, 21' 8" ME + Arm 2.9 m, 9' 6" ME + Shoe 650 mm, 26" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																								
	9 m 30'																								
	7.5 m 25'																								
	6 m 20'																								
	4.5 m 15'	289	63,710	289	63,710	219	48,370	219	48,370	184	40,740	179	39,620	155	34,170	134	29,630								
	3 m 10'					244	53,880	244	53,880	197	43,520	173	38,160	170	37,480	131	28,970								
	1.5 m 5'	316	69,800	316	69,800	261	57,560	231	51,100	206	45,570	167	36,910	172	37,990	128	28,370								
	0 m 0'	353	77,820	353	77,820	264	58,310	226	49,930	208	45,940	164	36,160												
	-1.5 m -5'	328	72,420	328	72,420	252	55,730	225	49,670	198	43,650	163	35,980												
	-3 m -10'	284	62,700	284	62,700	221	48,830	221	48,830																
	-4.5 m -15'	206	45,500	206	45,500																				
Boom 7.7 m, 25' 3" + Arm 2.9 m, 9' 6" + Shoe 650 mm, 26" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																								
	9 m 30'																								
	7.5 m 25'																								
	6 m 20'																								
	4.5 m 15'																								
	3 m 10'																								
	1.5 m 5'																								
	0 m 0'																								
	-1.5 m -5'	264	58,380	264	58,380	236	52,050	214	47,200	190	42,040	154	33,950	153	33,910	120	26,520								
	-3 m -10'	250	55,160	250	55,160	209	46,230	209	46,230	169	37,410	156	34,460												
	-4.5 m -15'	196	43,250	196	43,250	165	36,550	165	36,550	124	27,360	124	27,360												
Boom 7.7 m, 25' 3" + Arm 3.55 m, 11' 8" + Shoe 650 mm, 26" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																								
	9 m 30'																								
	7.5 m 25'																								
	6 m 20'																								
	4.5 m 15'																								
	3 m 10'																								
	1.5 m 5'																								
	0 m 0'																								
	-1.5 m -5'	270	59,610	270	59,610	244	53,950	213	47,090	195	43,080	153	33,930	158	35,030	119	26,300								
	-3 m -10'	277	61,180	277	61,180	223	49,320	215	47,420	180	39,710	154	34,080	142	31,420	120	26,540								
	-4.5 m -15'	229	50,550	229	50,550	188	41,470	188	41,470	148	32,780	148	32,780												
Boom 7.7 m, 25' 3" + Arm 4.2 m, 13' 9" + Shoe 650 mm, 26" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																								
	9 m 30'																								
	7.5 m 25'																								
	6 m 20'																								
	4.5 m 15'																								
	3 m 10'																								
	1.5 m 5'																								
	0 m 0'	190	42,020	190	42,020	251	55,380	213	47,020	196	43,340	154	33,970	161	35,520	118	26,170								
	-1.5 m -5'	259	57,280	259	57,280	246	54,390	210	46,340	195	43,030	151	33,360	159	35,080	116	25,730								
	-3 m -10'	295	65,120	295	65,120	231	50,970	210	46,390	184	40,720	150	33,270	148	32,800	116	25,750								
	-4.5 m -15'	253	55,930	253	55,930	202	44,690	202	44,690	161	35,630	153	33,780	122	27,010	119	26,370								
Boom 7.7 m, 25' 3" + Arm 5.2 m, 17' 1" + Shoe 650 mm, 26" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																								
	9 m 30'																								
	7.5 m 25'																								
	6 m 20'																								
	4.5 m 15'																								
	3 m 10'																								
	1.5 m 5'																								
	0 m 0'	215	47,600	215	47,600	242	53,550	213	47,090	189	41,680	153	33,890	155	34,190	117	25,920								
	-1.5 m -5'	250	55,120	250	55,120	246	54,280	207	45,770	192	42,480	149	32,850	157	34,630	114	25,220								
	-3 m -10'	315	69,510	315	69,510	238	52,620	205	45,300	188	41,540	147	32,410	152	33,700	113	24,910								
	-4.5 m -15'	284	62,610	284	62,610	219	48,410	206	45,570	174	38,440	147	32,520	139	30,710	113	25,070								
	-6 m -20'	235	51,940	235	51,940	185	40,850	185	40,850	145	32,120	145	32,120	106	23,520	106	23,520								

- Notes:
- Machine in "Fine Mode-F" (Power Boost) for lifting capacities.
 - The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
 - Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
 - Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

Across undercarriage	Lifting hook related to ground level	4.5 m, 15'		6.0 m, 20'		7.5 m, 25'		9.0 m, 30'		10.5 m, 35'		Max. reach					
		Along undercarriage	t lb	t lb	t lb	t lb	t lb	t lb	t lb	t lb	t lb	t lb	t lb	t lb	Max. m/ft		
Boom 6.6 m, 21' 8" + Arm 2.9 m, 9' 6" without bucket + Shoe 750 mm, 30" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																
	9 m 30'																
	7.5 m 25'																
	6 m 20'																
	4.5 m 15'	289	63,710	289	63,710	219	48,370	219	48,370	184	40,740	181	39,990	155	34,170	135	29,920
	3 m 10'					244	53,880	243	53,750	197	43,520	174	38,510	170	37,480	132	29,280
	1.5 m 5'	316	69,800	316	69,800	261	57,560	237	51,610	206	45,570	169	37,280	172	37,990	130	28,660
	0 m 0'	353	77,820	353	77,820	264	58,310	228	50,440	208	45,940	165	36,510				
	-1.5 m -5'	328	72,420	328	72,420	252	55,730	227	50,180	198	43,650	164	36,350				
	-3 m -10'	284	62,700	284	62,700	221	48,830	221	48,830								
Boom 7.7 m, 25' 3" + Arm 2.9 m, 9' 6" without bucket + Shoe 750 mm, 30" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																
	9 m 30'																
	7.5 m 25'																
	6 m 20'																
	4.5 m 15'																
	3 m 10'																
	1.5 m 5'																
	0 m 0'																
	-1.5 m -5'	264	58,380	264	58,380	236	52,050	216	47,730	199	42,040	156	34,380	153	33,910	121	26,810
	-3 m -10'	250	55,160	250	55,160	209	46,230	209	46,230	169	37,410	157	34,810				
Boom 7.7 m, 25' 3" + Arm 3.55 m, 11' 8" without bucket + Shoe 750 mm, 30" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																
	9 m 30'																
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	6 m 20'																
	4.5 m 15'																
	3 m 10'																
	1.5 m 5'																
	0 m 0'																
	-1.5 m -5'	270	59,610	270	59,610	245	54,010	216	47,660	195	43,140	155	34,370	159	35,120	120	26,650
	-3 m -10'	277	61,180	277	61,180	224	49,410	217	47,990	188	39,770	156	34,520	142	31,500	122	26,920
Boom 7.7 m, 25' 3" + Arm 4.2 m, 13' 9" without bucket + Shoe 750 mm, 30" + Counterweight 11,300 kg, 24,920 lb	10.5 m 35'																
	9 m 30'																
	7.5 m 25'																
	6 m 20'																
	4.5 m 15'																
	3 m 10'																

20

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

[illegible]

21

STANDARD EQUIPMENT

Engine

Turbocharged, 4-stroke diesel engine with water cooling, direct injection and charged air cooler that meets EPA Tier 3 requirements

Automatic idling system

Air filter with indicator

Air intake heater

Electric engine shut-off

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

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 3
- Boom-mounted 4

Travel alarm

Batteries, 2 x 12 V / 225 Ah

Start motor, 28 V / 6.6 kW

Hydraulic system

Hose rupture valve: boom

Overload warning device

Automatic sensing hydraulic system:

- Summation system

- Boom priority

- Arm priority

- Swing priority

Boom and arm regeneration valves

Swing anti-rebound valves

Boom and arm holding valves

Boom float function

Pump flow control for hammer & shear

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

11,300 kg, **24,920 lb**

Tool storage area

Service walkway with anti-slip grating

Undercover (heavy-duty 4.5 mm, **0.18"**)

Side walk-way

Cab and interior

Fabric seat with heater

Pilot-operated wrist control joysticks

with 3 switches each

Heater & air-conditioner, automatic

Hydraulic dampening cab mounts

Adjustable operator seat and joystick control console

AM/FM stereo with CD player and MP3

input; includes flexible antenna

Hydraulic safety lock lever

Cab, all-weather sound suppression, includes:

- Ashtray
- Cup holder
- Lighter
- Door locks
- Tinted glass
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt, 3-inch retractable
- Safety glass
- Sun shield, front, roof, rear
- Rain shield, front
- Windshield wiper with intermittent feature

Anti-vandalism kit assembly preparation

Master key

Undercarriage

Hydraulic track adjusters

Greased and sealed track chain

Track guard

Undercover (10 mm, **0.39"**)

Mechanically retractable track gauge

Track shoes

Track shoes, 900 mm, **36"** with double grouser

Digging equipment

Boom: 7.7 m, **25' 3"**

Arm: 3.55 m, **11' 8"**

Centralized lubrication points

Service

Special tool for retractable frame

OPTIONAL EQUIPMENT

Engine

Block heater: 120V

Dual stage precleaner

Diesel coolant heater

Water separator with heater

Low noise kit

Fuel filler pump: 100 l/min **26.4 gpm**, with automatic shut-off

Electric

Extra lamps:

- Cab-mounted 1
- Upper structure-mounted 1

Swing alarm

Anti-theft system

Rotating warning beacon

Hydraulic system

Hose rupture valve: arm

Hammer & shear:

- 1 and 2 pump flow

- Additional return filter

- 1 switch control

- 2 switch control

- Pedal switch control

Hydraulic oil, ISO VG 32

Hydraulic oil, ISO VG 68

Hydraulic oil, biodegradable 32

Hydraulic oil, biodegradable 46

Cab and interior

Fabric seat

Fabric seat with heater and air suspension

Control joystick with semi-long levers

Control joystick with 5 switches each

Falling object guard (FOG)

- Frame-mounted (356 kg, **785 lb**)

- Cab-mounted (153 kg, **337 lb**)

Cab-mounted falling object

protective structure (FOPS: 80 kg, **176 lb**)

Sunlight protection, roof (steel)

Foot support bar

Safety screen for front window

Lower wiper

Anti-vandalism kit

Undercarriage

Full track guard (190 kg, **419 lb** / unit)

Track shoes

650 mm, **26"**, 750 mm, **28"** track shoes with double grousers

Digging equipment

Boom: ME 6.6 m, **21' 8"**

Arm: 2.9 m, **9' 6"**

4.2 m, **13' 9"**

5.2 m, **17' 1"**

Service

Electric grease gun

Hand lamp

Special tool for retractable frame

Tool kit, full scale

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

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