

VOLVO COMPACT EXCAVATORS

EC35C



# COMMANDING PERFORMANCE. EVERYDAY.

Take command of the Volvo EC35C Excavator and take control of your jobsite. Power and efficiency that save time and cost. Ideal visibility.

Controls and instrumentation right where you want them. All-day comfort for all-day production. That's command of the jobsite. That's the Volvo EC35C.

## Efficient power and performance

Tear into the dirt with power and increased break out force. Lift, load and crane with ease and precision. Do it all with the Volvo EC35C and its advanced Volvo engine and hydraulic system. The powerful, new generation Volvo engine is a proven performer. It delivers reliable power, long life and leading fuel efficiency that will save you money. Meeting Tier 3 /Stage3A environmental standards, it's also quieter and produces lower emissions.

The powerful load-sensing hydraulic system uses the Volvo patented mono pump system. It's easy to operate and because it uses one system for all hydraulics, it's ultra efficient, smooth and precise.

## Quick work means more profit

Handle a wide range of jobs – and do each with ease and speed. Slew and offset can now be multi-functioned in one natural motion. Float blade allows the operator to backfill, level and contour for finish grading. Just push forward on the blade lever for the right amount of consistent blade down force. Two-speed travel automatically shifts from high to low speed according to travel load. It's one less thing to worry about – and one more thing to increase production. Travel speed has also been increased to improve cycle time.

## Smooth and stable

The Volvo EC35C features new tracks with a shorter pitch and a side cut protection. They not only permit travel speeds up to 10 percent faster, they also provide less vibration and best-in-class comfort. For stability, the right side-position engine and large rear counterweight offers excellent weight balance and distribution – improving performance when using heavy or long attachments.

## Options that get the job done

The optional pin-on quick coupler features a safe, improved design. Increase versatility and profits while retaining maximum breakout force.

You can also utilize buckets in face/shovel mode. Other options include the hydraulic angle blade controlled by the blade lever and the Volvo thumb that picks up large/bulky objects with ease.

An optional second double-acting attachment circuit, controlled with a fingertip electro-proportional control, provides easy and efficient command of hydraulic attachments, such as tilt rotators.



- Powerful, fuel-efficient Volvo engine.



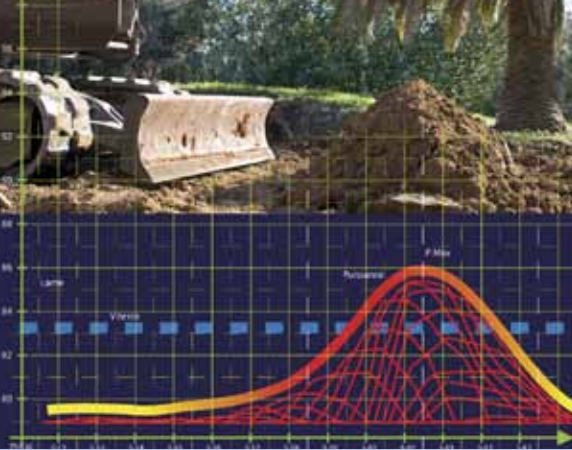
- In control with stability and balance.



- New Volvo pin on quick coupler.



- Get a handle on it with the Volvo thumb.



- Travel speed adjusts to the load.
- Control the angle blade with the lever.
- Compact swing and maneuverability.



# GET MORE DONE IN COMFORT.

When it comes to fatigue, less is more productivity. The Volvo EC35C keeps you fresh all day long with the most comfortable cabs in the industry, leading all-around visibility, ample cab space, ergonomic controls and excellent heating, cooling and ventilation. Get more done in Volvo comfort.

## The best cab is right here

Experience the Volvo Comfort Cab and ease into getting more work done.

The EC35C cab is one of the most spacious in the industry, with plenty of legroom and headroom.

The large, one-piece floor makes it easy to clean out mud, water or debris.

The multi-adjustable high-back seat provides comfort, as well as proper back, neck and head support. The console, joysticks and seat are mounted on the same suspension for smooth, consistent operation during jolts and shocks. Furthermore, the cab frame utilizes rubber isolation mounts at all four cab corners for a smoother ride, with less vibration and noise.

## You are in control

Enjoy precise, fingertip control through an electro-proportional control on the right joystick. This roller-type action controls the attachment circuit and the boom offset, for accurate adjustment of hydraulic flow and direction. To maximize familiarity and efficiency at the controls, the optional control pattern switch located inside the cab makes it easy to use the ISO or SAE control pattern.

## Productivity is in your sights

It's easier to get the job done quickly when everything is right where you want it. Monitor all critical machine functions with the easy-view instrument panel.

Clear, at-a-glance information, warning lights and audible signals mean more safety. And for a clear, safe view around the outside of the machine, the contoured cab with large, glazed areas provides excellent all-around visibility.

The compact rear design along with only one rear cab pillar offers an improved view.

## Work in an air of comfort

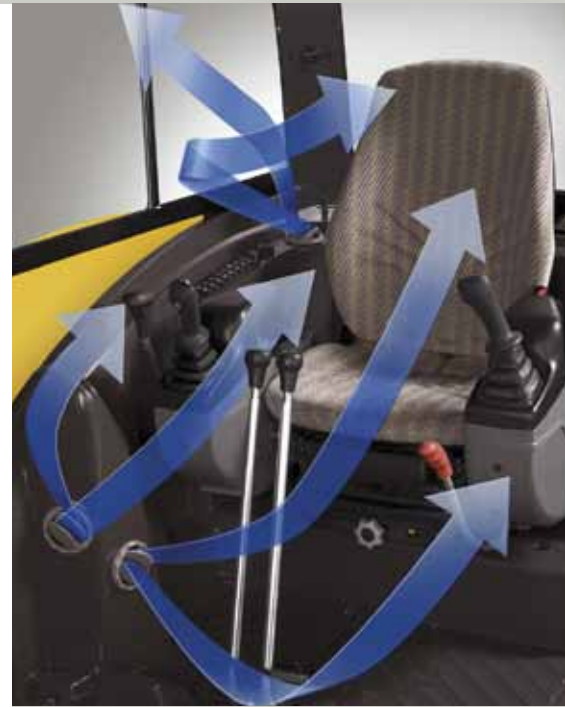
No matter what kind of weather you work in, the Volvo EC35C will help you stay comfortable and productive all year long. Two heating vents provide comfort and window defrosting.

Optional air conditioning keeps you cool when working in hot, humid or dusty conditions.

For natural ventilation, the side window slides open easily.

The gas-strut assisted front windshield opens wide and safely stores in a locked, secure position overhead.

The lower window is easily removable and can be stored safely.



- Climate controlled heating and cooling.



- Precision control at your fingertips.



- Easy-open windscreen stores securely.



- Spacious, comfortable Volvo cab.
- Large, easy-clean one-piece floor.
- Designed for all-around visibility.



# HARD AT WORK. EASY AT SERVICE.

Maximum uptime. To Volvo it means quality, reliability and ease of service. For Volvo EC35C owners it means more work and more profits. Start each day with fast checks. Keep it running with quality you can trust. And feel the security of a Volvo investment with excellent residual value.

## Service access to uptime

The side position, easy-open engine hood makes routine maintenance and service checks easy.

You get full access from the ground.

Service points are clustered together.

Check the engine oil level, fuel system, air filter and coolant level.

Cleaning the oil cooler and radiator is simple. A large fuel filler neck allows you to fill up from the fuel station pump or portable fuel cell.

## Volvo quality offers protection

Long life is built into the welded x-shaped undercarriage. It's a design employed on many larger excavators, and it provides sturdy operation, high performance and better load distribution.

The cab door remains protected in the open position by a secure locking system. The door does not stick outside the width of the undercarriage.

And to keep boom lights protected, optional metal shrouds add durability for difficult conditions.

## Volvo is the safe way to work

Volvo EC35C cab and canopies come standard with FOPS 1, ROPS and TOPS protection. It is peace of mind against falling objects, roll over and tip over. Inside, the operator stays securely seated with a retractable seat belt that fits all sizes. A visual alarm warns the operator if the seat belt is not engaged. Optional safety valves can be installed on the boom and dipper cylinders, preventing the load from slipping or dropping due to hose failure. And to safely reduce noise, emissions and fuel consumption, an automatic idling system returns the engine to idle if no controls are operated for more than five seconds. Simply touch any control, and the engine returns to high idle.

## Long-term residual value

Residual value is an important factor when considering a machine. The Volvo EC35C is loaded with quality and features that improve long-term value. There's new cab styling with rounded contours, a short distance behind the operator's seat and a forward-leaning view of the work area. This offers excellent visibility and a modern style that enhances value. High-quality pivot points (pins, bushings and borings) provide minimal slip or play for the life of the machine.

And to help protect against vandalism, an engine-key lockable panel protects the fuel port and toolbox.



- Fully waterproofed connectors.



- Easy fuel fill from the pump or can.



- Sturdy, rigid X-shaped undercarriage.



- Service points are clustered together.



- Full range of genuine Volvo service parts.
- Complete, easy service access.



# SPECIFICATIONS

## Engine

Low emission, water-cooled, direct injection Volvo 4-cylinder diesel engine, meeting Tier III / STAGE IIIA environmental regulations and equipped with automatic return to idling system

<b>Model</b>	D2.2DCAE2
<b>Gross power, rated (ISO 9249)</b>	27.1 kW (36.3 hp) at 2200 r/min
<b>Power, installed (ISO 9249)</b>	26 kW (34.9 hp) at 2200 r/min
<b>Displacement, total</b>	2190 cc
<b>Maximum torque</b>	138 Nm at 1320 r/min
<b>Bore x stroke</b>	88 mm x 90 mm
<b>Gas emission</b>	PM: 0.3 g/kwh NOx + HC : 7.5 g/kwh CO: 5.5 g/kwh

## Electrical system

<b>Battery capacity</b>	12 V - 65 Ah
<b>Alternator rating</b>	12 V - 55 A
<b>Starter motor output</b>	12 V - 2.3 kW

## Hydraulic system

Closed centre Load Sensing hydraulic system providing total independence of each movement.

<b>Control</b>	power-assisted hydraulic controls
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Variable displacement Load Sensing pump for all the equipment and travel circuits :

<b>Maximum flow</b>	100 l/m
<b>Maximum operating pressure</b>	24 MPa (240 bars)

Finger-tip controlled double-acting hydraulic circuit for accessories :

<b>Maximum adjustable flow</b>	60 l/min
<b>Maximum operating pressure</b>	24 MPa (240 bars)

End-of-stroke cushions :

<b>On boom ram</b>	at the end of the rod extension
<b>On dipper ram</b>	at the end of the rod retraction

## Bucket performance

<b>Breakout force</b>	3094 daN
<b>Tearout force</b>	2239 daN

## Slewing system

Turntable slewing is provided by a radial piston hydraulic motor which drives directly (without a reduction gear) a ball internal crown wheel with remote lubrication :

<b>Slewing speed</b>	9,5 rpm
<b>Turntable braking</b>	automatic multi-disc brake
<b>Absorption of hydraulic shocks</b>	Shockless valve

## Undercarriage

The undercarriage is made up of an "X" box centre part for more rigidity and of sloping side members for a better clearance of materials. The rollers and the tensioning wheels are lubricated for life.

<b>Bottom/top rollers per side</b>	4 / 1
<b>Track width</b>	300 mm
<b>Track tension</b>	by grease piston
<b>Blade (width x height)</b>	1650 x 366 mm

## Drivetrain

Each track is driven by an axial piston hydraulic motor equipped with two speeds and an epicyclic reduction gear.

<b>Max. speed (low speed/ high speed)</b>	2.8 km/h / 4.8 km/h
<b>Max. tractive force</b>	2950 daN

The travel control is automatically locked when the operator raises the left console.

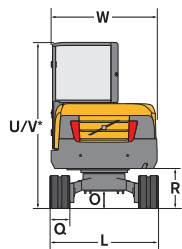
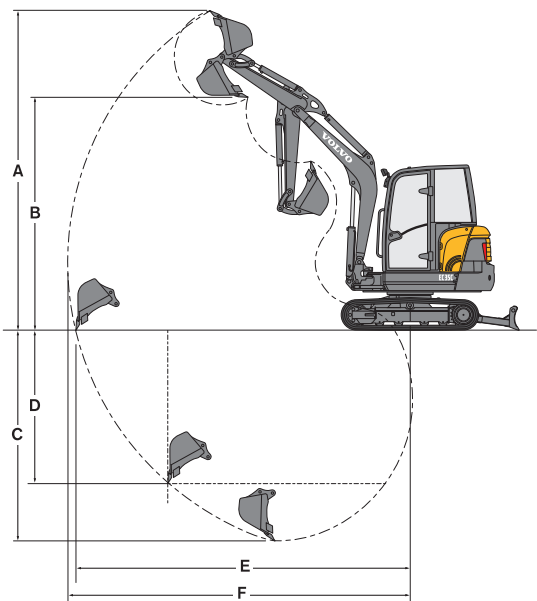
## Service fill capacities

<b>Fuel tank</b>	60 l
<b>Hydraulic tank</b>	20 l
<b>Hydraulic system, total</b>	50 l
<b>Engine oil</b>	8,6 l
<b>Cooling system</b>	6 l

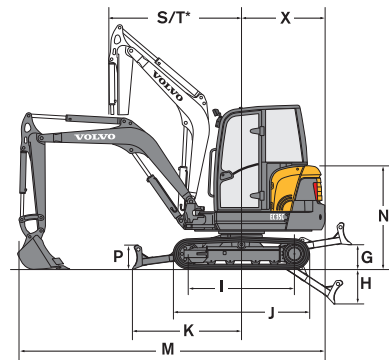
## Weight

Weight and ground pressure with 300 mm rubber tracks and standard bucket :

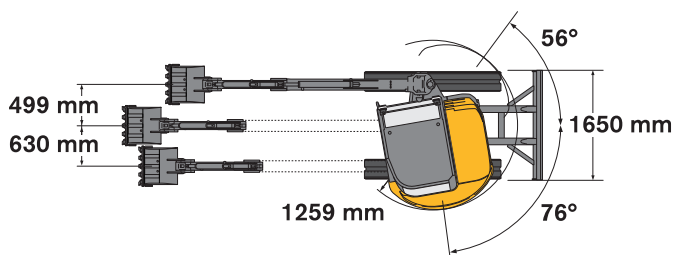
	Operating	Ground pressure
<b>Canopy version</b>	3435 Kg	0,31 kg/cm <sup>2</sup>
<b>Cab version</b>	3565 Kg	0,33 kg/cm <sup>2</sup>



\* Canopy



\* front turning circle with max. offset



Buckets			
	Width	Weight	Capacity
Backhoe	300 mm	6,8 kg	49,7 l
	450 mm	76,8 kg	79,4 l
	600 mm	96,5 kg	110 l
	750 mm	111,5 kg	153 l
Ditch	1300 mm	125 kg	175 l

Dipper	A	B	C*	C	D	E	F
1400 mm	4800	<b>3529</b>	<b>3426</b>	<b>3169</b>	2290	5068	5187
1700 mm	4974	<b>3705</b>	<b>3708</b>	<b>3469</b>	2580	5357	5470

\* Dig depth with the blade down.

G	H	I	J	K	L	M	N	O
368	521	1602	2057	1647	1620	4591	1563	257

P	Q	R	S	T*	U	V	W	X
366	300	590	2040	1603	2477	2427	1580	1259

mm

### Lifting capacity

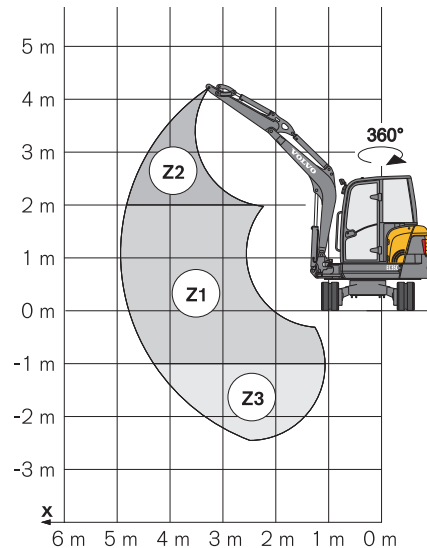
These capacities are given for a machine without a bucket or quick-release coupling and fitted with rubber tracks for a 360° total rotation lifted load.

The handling capacity is 75% of the tipping load or 87% of the hydraulic limit.

Caution : In accordance with standard EN 474-5, the machine must be equipped with a safety valve on the boom ram and an overload indicator (available as options) to carry out handling operations.

Outreach	(kg)	1,00 m	1,50 m	2,00 m	2,50 m	3,00 m	3,50 m	4,00 m	4,50 m	Max	Xmax
1400 mm	Z2	-	-	-	-	768	654	529	-	495	4.15
	Z1	1497*	1709*	1168	924	717	583	488	-	430	4.45
	Z3	2131*	2136	1193	926	717	583	-	-	-	-
1700 mm	Z2	-	-	-	-	-	623	534	-	-	-
	Z1	-	1032*	1272	914	709	575	480	412	390	4.75
	Z3	-	2136	1275	911	705	572	479	-	-	-

\* hydraulic limit



## STANDARD EQUIPMENT

### Engine

Low-emission Volvo diesel engine.  
Dry-type air filter.  
Electric heating device.  
Fuel filter + transparent sediment chamber.  
Purge plug under the diesel oil tank.  
Oil sump sheet metal guard.  
Automatic return to idling system.

### Electrical system

Water-resistant electrical connectors (IP67).  
Two working lights on cab version.  
Working light on the canopy frame.

### Hydraulic system

Load-sensing system.  
ISO power-assisted hydraulic controls.  
Accessory circuit and the boom offset are controlled by an electroproportional control on the right joystick.  
Control of forward and backward movement by two levers coupled to pedals.  
Double-acting hydraulic circuit for accessories.

### Seat

"Deluxe" fabric or vinyl-covered superior comfort multi-adjustable sprung seat with a high back and fully-suspended consoles.

### Cab (cab version)

Cab mounted on rubber mountings.  
In cab heating and ventilation adjustment.  
Front window with opening system power-assisted by a gas ram.  
Provision for a radio (location for a radio and two speakers, aerial and electric wiring already fitted).  
Anti-corrosion protection of the cab by electrophoresis.  
Windscreen wiper and washer (front).

### Instrumentation and monitoring

Warning lights for hydraulic filter and air filter restriction.  
Gauges : water temperature, fuel level.  
Hour meter.  
Warning lights, coupled to an audible signal, in the event of overheating or drop in oil pressure.

### Earthwork equipment

2450 mm long monobloc boom.  
1400 mm dipper.  
Float blade.

### Safety

Cab and canopy versions are:  
Level 1 FOPS (Falling Objects Protective Structure).  
TOPS (Tip-Over Protective Structure).  
ROPS I (Roll-Over Protective Structure).  
All-around visibility.  
Device for locking the earthwork equipment's controls and the travel levers when the left console is raised to gain access to the driver's cab.  
Engine starting safety device : the left console must be raised to operate the starter.  
Pressure accumulator in order to be able to put the equipment on the ground if the engine is switched off.  
Seat belt with visual indicator.  
Rear view mirror right

### Official approval

Machine conforming to European directive 98/37/EC.  
Noise emissions in the environment conforming to directive 2000/14/EC.  
Object handling device conforming to EN 474-5 standard.  
FOPS 1 conforming to ISO 3449 standard.  
TOPS conforming to ISO 12117 and EN 13531 standards.  
Electromagnetic compatibility (EMC) conforming to European directive 89/336/EC and its amendments.

## OPTIONAL EQUIPMENT

### Handling and earthwork equipment

Long dipper (1700 mm).  
The long arm is recommended only for special applications with long reach and low density materials.  
Safety valve piloted by the power assistance circuit on the boom & dipper rams with overload indicator.  
Thumb.  
New mechanical quick coupler (pin-grabber type).  
New fully automatic hydraulic quick coupler (pin-grabber type).  
Single-acting or double-acting hydraulic circuit for quick coupler activation.

### Hydraulic circuits for attachments

Hydraulic circuit for operating a clam-shell bucket (opening/closing and rotation).  
2 or 4 Push pull FLAT FACE hydraulic couplings.  
Additional adjustment roller of max. delivery available on the accessory circuit.  
2nd accessory circuit to arm end (with proportional control and max flow adjustment).

### Undercarriage

Steel tracks : 300 mm wide.  
Angle blade.

### Lighting

Additional working light on the boom.  
Additional rear working light & rotating beacon.

### Environmental protection

Bio-degradable hydraulic oil VG46.  
Hydraulic oil for warm conditions VG68.  
Bio-degradable hydraulic oil for cold conditions VG32.

### Comfort

Air conditioning + tinted glasses.  
Radio CD/MP3  
Canopy.  
Suspended de luxe vinyle seat.  
ISO / SAE pattern selector.

### Safety

Rear view mirror left.  
Anti-theft system (2 programmable codes).  
Front guar protection (FOG).  
Retractable seat belt.

### Service and maintenance

Tool kit.  
Dual stage air-filter.

### Miscellaneous

Special customised paint (RAL specifications).



# VOLVO CONSTRUCTION EQUIPMENT



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.

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

## **VOLVO**

**Volvo Construction Equipment**  
[www.volvoce.com](http://www.volvoce.com)

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