

VOLVO COMPACT EXCAVATOR

# EC13 XR, XTV



**VOLVO**

# THE VOLVO DO-IT-ALL, GO-ANYWHERE COMPACT EXCAVATOR.

Meet the Volvo EC13 Compact Excavator, definitely the easiest to get onto any job site. The Model EC13 is a 1.2T machine built especially for anyone who needs top performance, simplicity and easy transport.

## **In a class by itself**

The Model EC13 is in a class by itself. It weighs 1,250 kg and is incredibly narrow. The single-speed XR version has a fixed 95 cm undercarriage while the two-speed XTV version has a 95 to 130 cm variable width undercarriage. No matter which you choose, you can load and tow it on a small trailer without any overload problems.

## **Operator friendly design**

It's also incredibly easy to operate - making it perfect for anyone who doesn't run a compact excavator every day. There are two curved side joystick control levers for easy control and a Load Sensing hydraulic circuit for smooth, independent movements.

The boom is offset and the hydraulic lines are inside the pivot, boom and dipper for an excellent view of the bucket.

## **Built to perform**

The Model EC13 has a lot of performance packed into a small frame. It features a breakout force of 1100 daN. The bucket has a large radius of movement, preventing material from falling out. It's available with a long or short arm - providing dig depths ranging from 2100 mm for the short arm to 2250 mm for the long arm.



- Variable width undercarriage giving improved stability.



- Hydraulic tubes and hoses are protected inside the arm and boom, giving improved visibility.



- The EC13 and its accessories can be easily transported on a trailer.
- Load Sensing hydraulic for easier operation.
- High performance bucket forces for increased productivity.



- Slings eyes on roof and boom for safe craning.
- Quick and easy switching between high and low speed.

# ONE MACHINE, ENDLESS POSSIBILITIES.

It's rare to find one machine that can take on a variety of tasks in a variety of applications. And that's why the Model EC13 is so unique. It's robustly built to take on the demanding work of construction sites, landscaping, utilities and much more. And it gets into spaces that other machines can only dream about.

## Protected from harm

The Model EC13 has the durability features you need to take on your next job. It has impact-resistant material on the body and steel shields in the back corners that also act as a counterweight. In addition, the boom cylinder is positioned on the top of the boom to protect the cylinder rod. And all the hydraulic piping is routed inside the boom for better protection.

## Comfortable to operate

Comfort is the key to productivity, and once again the Model EC13 delivers. It features a large, open floor. The seat is fully adjustable to accommodate any size operator. The controls are simple to use and the instrument panel is easy to see. There's also anti-vibration tracks and soundproofing in the engine compartment for a quiet, smooth ride.

## Built to last

The Model EC13 was also built for the long haul and features a large, sturdy undercarriage. The curved boom offers more rigidity for hard digging. For demolition, you'll appreciate the standard oil cooler, protected cylinder, and an optional double-acting hydraulic breaker kit. And for landscaping, the rounded, reinforced blade provides excellent grading while the load sensing hydraulic circuit gives you independent movements for leveling and slope work.



- O-ring face seal technology on hydraulic connectors to prevent leaks.



- Boom cylinder positioned above the boom for better protection.



- Wide range of accessories available.



- The quick coupling enables an accessory or a bucket to be hooked quickly without leaving the operator's cab.
- Two impact resistant steel shields for better protection.



- High technology hydraulic device enables precise and independent movements.
- Versatile machine.

# FEATURES YOU NEED TO WORK SAFELY AND EFFICIENTLY.

Safety has always been a key element of all Volvo equipment, and the Model EC13 is no exception. It's filled with features designed to protect the operator. In addition, it's built for easy service to ensure a long life on the job. And, it has the quality you expect from Volvo.

## A safer approach

The Model EC13 has a ROPS/FOPS/ TOPS canopy and controls that lock out whenever the operator leaves the seat, including the boom, blade, travel, and attachment.

## Quick and easy access

Open the rear cover to check service points on either side of the machine. An easily removable side panel provides access to all components and a tilting seat reveals the battery, fuses, hydraulic valves and engine starter.

## A tough, reliable machine

The Model EC13 features a proven 14 kW (19 hp) diesel engine. There are high-quality hydraulic connectors to reduce downtime. All electrical connections are waterproof, and there's a large capacity, plastic fuel tank to prevent rusting.

## Customize your EC13

The EC13 is available as standard in yellow, blue, red and green, so you can have your own unique look. With the availability of several option levels, Volvo can also customise your EC13 at the factory, to match your company's colour scheme in any RAL colours.



Volvo Yellow



Ocean Race Blue



Racing Red



Panorama Green



- ROPS/TOPS/FOPS canopy.



- Excellent ground level engine access for service.



- The operator is held safe and secure, even travelling downhill.



- Controls are locked when entering or leaving the machine.
- Floor plate can be removed, seat tilts for access to hydraulic components.



- Anti-vibration tracks for quieter operation.
- Optional anti-theft coded keypad.





# SPECIFICATIONS

## Engine

Water-cooled low emissions Mitsubishi L3E diesel engine.

<b>Model</b>	L3E2
<b>Gross power, rated</b>	14.0 kW (19.0 hp) at 2800 r/min
<b>Power, installed (ISO 9249)</b>	11.1 kW (15 hp) at 2150 r/min
<b>Displacement, total</b>	952 cm <sup>3</sup>
<b>Maximum torque (ISO 9249)</b>	50 Nm at 1800 r/min
<b>Bore x stroke</b>	76 mm x 70 mm

## Electrical system

<b>Rated voltage</b>	12 V
<b>Battery capacity</b>	12 V - 45 Ah
<b>Alternator rating</b>	12 V - 40 A
<b>Starter motor output</b>	12 V - 1.6 kW

## Hydraulic system

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

Gear pump for all the equipment (boom, dipper, bucket) and travel circuits.

<b>Maximum delivery</b>	31 l/min
<b>Maximum operating pressure</b>	170 bars

Double-acting hydraulic circuit for accessories.

<b>Maximum delivery</b>	31 l/min
<b>Maximum operating pressure</b>	170 bars

Cushions.

<b>On the boom ram</b>	fully retracted
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## Bucket performance

<b>Breakout force</b>	1100 daN
<b>Tearout force</b>	700 daN

## Slewing system

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

<b>Slewing speed</b>	9 r/min
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## Service fill capacities

<b>Fuel tank</b>	18 l
<b>Hydraulic system, total</b>	17.5 l
<b>Engine oil</b>	3.6 l
<b>Cooling system</b>	5 l

## Undercarriage

	EC13 XR	EC13 XTV
<b>Undercarriage type</b>	Fixed	Variable
<b>Overall width</b>	950 mm	950 - 1300 mm
<b>Track width</b>	200 mm	200 mm
<b>Number of speeds</b>	1	2
<b>Max. speed</b>	2.0 km/h	1.8 and 3.1 km/h
<b>Max. tractive force</b>	850 daN	1020 daN




The forward movement controls are automatically locked when the operator raises the safety lever.

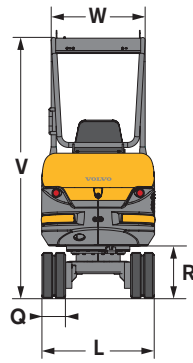
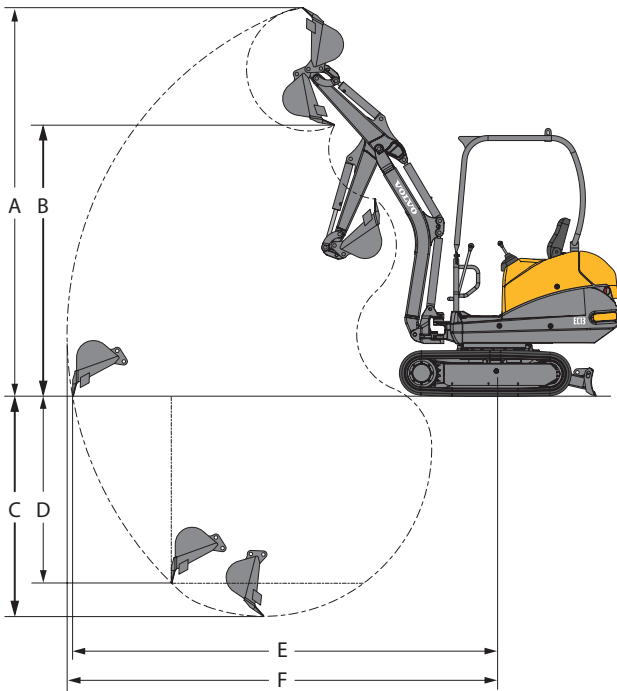
## Weight

	EC13 XR	EC13 XTV
<b>Operating mass</b>	1258 kg	1361 kg
<b>Transport mass</b>		
<b>according to standard ISO 6016</b>	1151 kg	1254 kg
<b>Ground pressure</b>	0.28 kg/cm <sup>2</sup>	0.30 kg/cm <sup>2</sup>

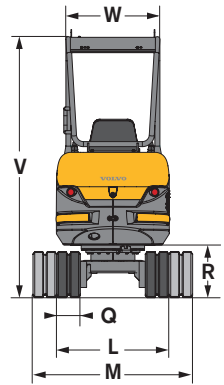
## Noise Levels

The EC13 conforms to the 2006 European Machine Directive Noise Level (2000/14/CE) of 93 dB(A) for this class of machine.

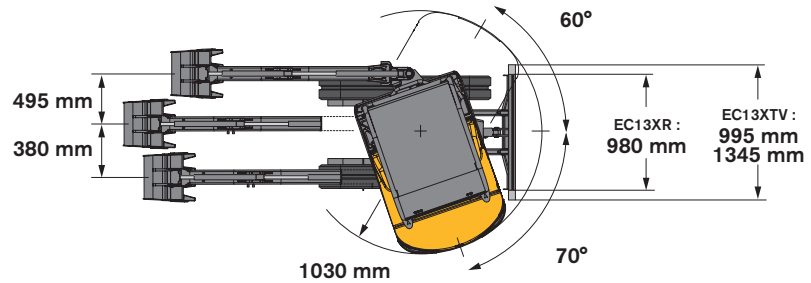
Bucket			
	Width	Weight	Capacity
Excavator buckets	250 mm	25 kg	19 l
	300 mm	28 kg	24 l
	350 mm	30 kg	28 l
	400 mm	32 kg	33 l
	450 mm	35 kg	38 l
	500 mm	37 kg	43 l
Ditch bucket	850 mm	43 kg	52 l



EC13 XR



EC13XTV



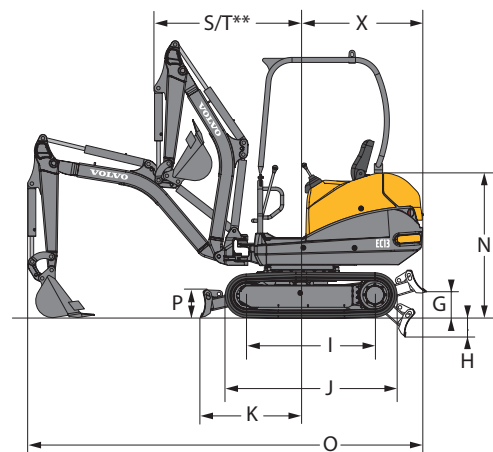
Version	Dipper	A	B	C*	D	E	F	
EC13XR	900 mm	3290	2290	2100	1860	1580	3600	3640
	1050 mm	3400	2410	2250	2010	1720	3740	3780
EC13XTV	900 mm	3310	2320	2080	1840	1560	3590	3640
	1050 mm	3420	2430	2230	1990	1700	3730	3780

\* Dig depth with blade down

Version	G	H	I	J	K	L	M	N	O
EC13XR	205	195	1085	1470	860	950	-	1230	3315
EC13XTV	221	175	1085	1470	875	950	1300	1250	3320

In mm

Version	P	Q	R	S	T	V	W	X
EC13XR	240	200	450	1490	1190	2265	795	1025
EC13XTV	240	200	475	1490	1190	2290	795	1025



\*\* Front turning circle with max. offset

## STANDARD EQUIPMENT

### Engine

Dry-type air filter.  
Electric pre-heating device.  
Transparent diesel oil filter, pre-filter and sediment bowl.  
Hand throttle.

### Electrical system

12 V - 45 Ah maintenance-free battery.  
Horn.  
12 V power socket for inspection lamp.

### Undercarriage

200 mm wide rubber tracks.  
Fixed undercarriage (EC13XR) or variable width undercarriage (EC13XTV).  
Dozer blade.  
Blade extensions with supports on the blade (EC13XTV).  
Towing and anchoring points.  
Remote lubrication of the slewing crown ring.

### Hydraulic system

Load-sensing system.  
Additional double-acting hydraulic control valve for an attachment circuit.  
Hydraulic offset of the boom controlled by the left control lever.  
Control of forward movement by two levers.

### Canopy

Level 1 FOPS (Falling Objects Protective Structure).  
TOPS (Tip-Over Protective Structure).  
ROPS (Roll-Over Protective Structure).  
Adjustable sprung seat covered with vinyl.  
Non-slip floor and grab handle for access to the driver's cab.  
Seat belt.  
A working light on the guard rail.

### Instrumentation and monitoring

Monitoring and warning light for :  
pre-heating, engine oil.  
Pressure, water temperature, battery harging, air filter restriction.  
Fuel gauge.  
Hour meter.

### Working equipment

1600 mm long monobloc boom.  
900 mm dipper.  
130° hydraulic boom offset.  
Cushion on the boom ram.  
Handling equipment for loads inferior to 1000 kg (lifting hook on the bucket with load chart displayed in the driver's cab).

### Safety

Device for locking all the travel, attachment, blade and earthwork controls when the safety lever is raised to access the operator's seat.  
Key-lockable toolbox.  
Key-lockable tip-up seat support and back cover.

### Official approval

Machine conforming to directive n° 98/37 EEC and its amendments.  
Sources emissions in the environment conforming to directive 2000/14/CE.  
Object handling device complying with standard EN 474-5.  
FOPS 1 conforming to ISO standard 3449.  
TOPS conforming to ISO standard 12117.  
Electromagnetic compatibility (EMC) conforming to directive n° 89/336 EEC and its amendments.

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## OPTIONAL EQUIPMENT

### Working equipment

Long dipper (1050 mm).  
Mechanically-controlled quick-release attachment bracket.

### Hydraulic circuits for attachments

Hydraulic double acting circuit on boom.  
Hydraulic circuit for operating a clam-shell bucket (opening/closing and rotation of the bucket).

### Undercarriage

Wide rubber tracks (230 mm wide).

### Environmental protection

Bio-degradable hydraulic oil.  
Catalytic exhaust.

### Lighting

Simple flashing light kit.  
Flashing light + additional working light kit.

### Comfort and safety

Armrests.  
Retractable seatbelt.

Anti-theft system (2 programmable codes).  
Electric circuit-breaker.  
Anti-vandalism unit to protect the instruments.  
Safety valve on boom and dipper ram.  
Dual stage air filter.  
Audible travel warning.

### Miscellaneous

Tool kit.  
Non-standard special paint (RAL specifications).

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## ATTACHMENTS

Earthwork buckets.

Cleaning buckets.

Hydraulic hammer.



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.**



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

# **VOLVO**

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