

VOLVO COMPACT EXCAVATOR

EC13



- **Gross Power :**
14 kW / 19 hp
- **Net Power :**
ISO 9249 : 11.3 kW / 15.5 hp
- **Operating Weight :**
1258 -1361 kg
- **Transport weight :**
1151 -1254 kg
- **Bucket Capacities :**
16 - 60 l
- **Maximum Digging Depth :**
2100 - 2250 mm
- **Very easy to use** thanks to the load sensing hydraulic circuit which provides total independence of all the movements.
- **Full safety** thanks to the locking of all the controls and to the TOPS, FOPS and ROPS canopy.
- **Boom and dipper completely protected** due to the fact that the hoses run on the inside and the high position of the boom cylinder.
- **Very easy transport**, even with a light vehicle, thanks to the reduced weight.
- **Very compact** to access the most cramped sites.
- **Variable-width undercarriage** for more stability.
- **Two travel speeds** for fast travelling.
- **Immediate access to all the mechanical components** for fast, easy maintenance.

VOLVO

The EC13 excavator in detail

Engine

Water-cooled low emissions Mitsubishi L3E diesel engine.
 Model L3E2
 Gross power, rated 14.0 kW (19.0 hp) at 2800 r/min
 Power, installed (ISO 9249)11.1 kW (15 hp) at 2150 r/min
 Displacement, total 952 cm³
 Maximum torque (ISO 9249) 50 Nm at 1800 r/min
 Bore x stroke 76 mm x 70mm

Electrical system

Rated voltage 12 V
 Battery capacity 12 V - 45 Ah
 Alternator rating 12 V - 40 A
 Starter motor output 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.
 Maximum delivery 31 l/min
 Maximum operating pressure 170 bars
 Double-acting hydraulic circuit for accessories.
 Maximum delivery 31 l/min
 Maximum operating pressure 170 bars
 Cushions.
 On the boom ram fully retracted

Bucket performance

Breakout force 1100 daN
 Tearout force 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.
 Slewing speed 9 r/min

Service fill capacities

Fuel tank 18 l
 Hydraulic system, total 17.5 l
 Engine oil 3.6 l
 Cooling system 5 l

Undercarriage

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

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

Weight

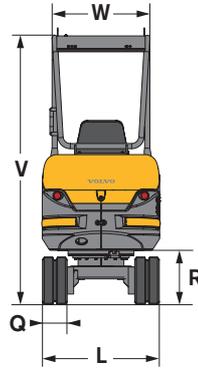
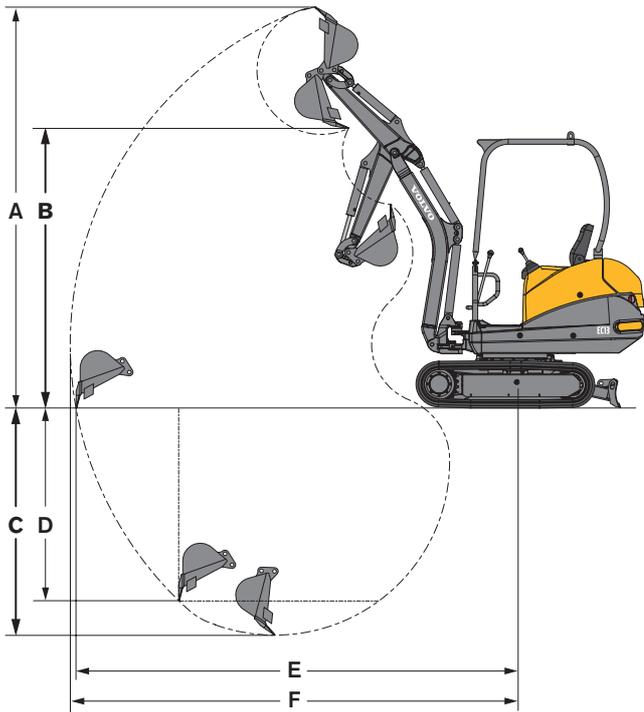
	EC13 XR	EC13 XTV
Operating mass	1258 kg	1361 kg
Transport mass according to standard ISO 6016	1151 kg	1254 kg
Ground pressure	0.28 kg/cm ²	0.30 kg/cm ²

Bucket

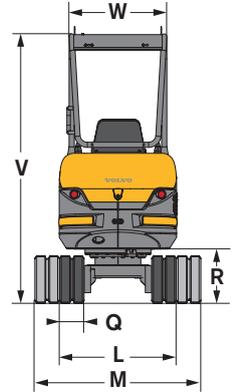
	 Width	 Weight	 Capacity
 Backhoe buckets	250 mm	25 kg	19 l
	300 mm	28 kg	24 l
	350 mm	30 kg	28 l
	400 mm	32 kg	33 l
	450 mm	35 kg	38 l
	500 mm	37 kg	43 l
 Ditch bucket	850 mm	43 kg	52 l



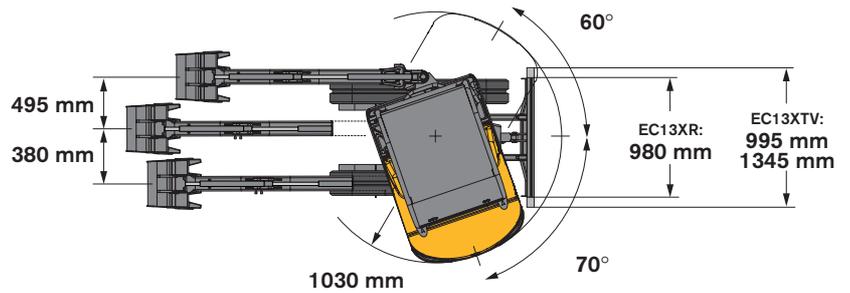
Technical characteristics



EC13XR



EC13XTV



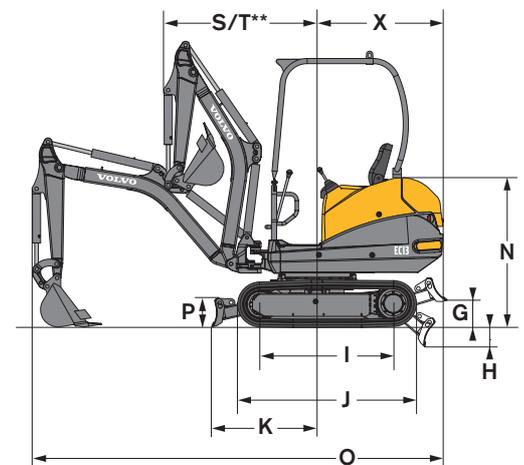
Version	dipper	A	B	C*	C	D	E	F
EC13XR	900	3290	2290	2100	1860	1580	3600	3640
	1050	3400	2410	2250	2010	1720	3740	3780
EC13XTV	900	3310	2320	2080	1840	1560	3590	3640
	1050	3420	2430	2230	1990	1700	3730	3780

* 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 charging, 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.

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).

Attachments

Earthwork buckets.
Cleaning buckets.
Hydraulic hammer.

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

VOLVO

Construction Equipment

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English
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CEX