

Volvo Construction Equipment  
Building Tomorrow



# EC15E

Volvo Compact Excavators 1.56-1.84 t 16.3 hp



# Built ready

A small machine packed with big features, the EC15E is the perfect choice when a compact machine is right for your application. Strong and tough with the performance to match, the machine is designed to promote low operating costs.

## Small but tough

The unique high-profile counterweight design is made from three strong pieces of cast iron which wrap around the rear of the machine, protecting all vital components. All-around steel panels, recessed 10mm from the counterweight, offer further protection.



## Best-in-class serviceability

Complete maintenance tasks with speed thanks to the hinged fuel tank which enables an impressive ease of access to the engine compartment, and easy to locate daily check points. A 50-hour greasing interval further contributes towards the best-in-class serviceability of this machine.



## Safe and easy operation

The roomy and uncluttered operator environment of the machine is designed to keep you safe and focused while at work, including simple layout of the controls, fingertip controls and large travel pedals. Safety is built-in to the machine with a ROPS/TOPS/FOPS cab and canopy, a large entrance including high visibility step, and an orange seatbelt as standard for easy checks by site managers.



## Transport with ease

Transportation of the machine is safe and secure, thanks to its light weight and convenient design. With automatic slew lock and four easily accessed large tie-down points on the upper frame, the machine can be safely transported on a small trailer with up to three buckets and a hydraulic breaker, while maintaining a total transport weight of less than 2t.





# COMPACT BY DESIGN

With a machine width less than 1m, combined with a reduced machine height to less than 2.35m, you can count on the EC15E to deliver superior performance when working in confined spaces. The machine design ensures maximum visibility and a reduced risk of machine damage when working alongside obstacles.

# Compact machine, big potential

## SMALL BUT TOUGH

- All-around steel panels **NEW**
- High-profile cast counterweight **A VOLVO EXCLUSIVE**
- Boom cylinder on top
- Protected hoses, routed inside the boom



## SAFETY FIRST

- High visibility entry step and cab handrail, orange seatbelt **A VOLVO EXCLUSIVE**
- Controls lock options (switch, seat operator presence or buckled seatbelt sensor) **A VOLVO EXCLUSIVE**
- 4 large easily accessible tie-down points on the upper frame **NEW**
- ROPS/TOPS/FOPS certified cab and 4-pillar canopy



## OPERATE WITH EASE

- Fingertip controls **A VOLVO EXCLUSIVE**
- Simple controls layout
- Uncluttered floor, large travel pedals
- Smooth combined movements

## MAXIMIZE PROFITABILITY

- Convenient access to engine compartment thanks to hinged fuel tank **A VOLVO EXCLUSIVE**
- All-around flat windows
- 50-hour greasing intervals
- Patented hydraulic filter

## THE COMPLETE PACKAGE

- Range of Volvo buckets and quick couplers
- Matched Volvo breaker
- Genuine Volvo Parts
- Volvo Financial Services

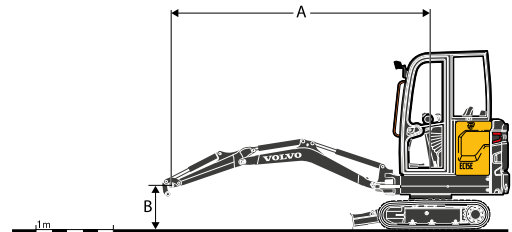
# Volvo EC15E in detail

Engine		
Engine		D0.9A
Max. power at	r/min	2 300
Gross	kW	12
	hp	16.3
According to ISO 2534 / SAE J1995		
Max. torque	Nm	52
at engine speed	r/min	1 800
No. of cylinders		3
Displacement	cm <sup>3</sup>	898
Bore	mm	72
Stroke	mm	73.6
Compression ratio		24
Electrical system		
Battery	V	1 x 12
Battery capacity	Ah	42
Alternator	V/Ah	12/40
Swing system		
Max. slew speed	r/min	9.5
Max. slew torque	daNm	243
Undercarriage		
Bottom/top rollers per side		3 / 0
Track tension		By grease piston
Blade (width x height)	mm	990 x 230
Digging Performances		
Standard bucket width (blade, W/O side cutter)	mm	450
Standard bucket mass	kg	33
Standard bucket rated capacity	l	36
Bucket rotation	°	196
Bucket breakout force (ISO)	daN	1 290
Short arm tearout force (ISO)	daN	795
Long arm tearout force (ISO)	daN	695

Weight and Ground Pressure		
Operating weight according to ISO 6016	kg	1 640
Ground pressure (cab)	kPa	28.4
Transport weight	kg	1 565
With rubber tracks	mm	230
With short arm	mm	950
With fuel tank capacity	%	100
With canopy	-kg	84
With long arm	+kg	4
With heavy counterweight	+kg	38
Hydraulic system		
Maximum system flow	l/min	34
Maximum flow for accessories	l/min	30
Maximum operating pressure	MPa	17
Travel System		
Max. drawbar pull	daN	1 160
Max. travel speed low	km/h	1.9
Gradeability	°	30
Service Refill		
Fuel tank	l	21
Hydraulic system, total	l	21
Hydraulic tank	l	15
Sound Level		
Interior sound level according to ISO 6396		
LpA	dB(A)	78
External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006 +A1:200		
LwA	dB(A)	93

## LIFTING CAPACITY EC15E

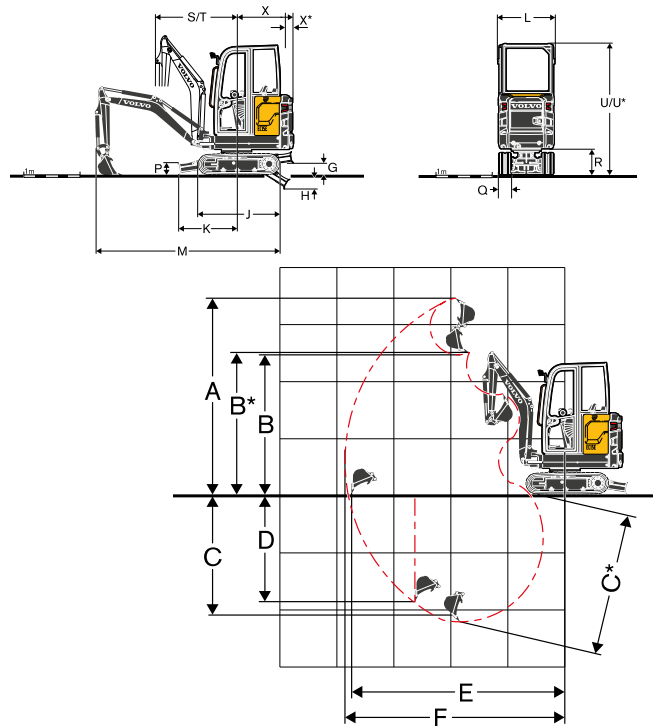
These capacities are given for a machine equipped with a cabin, rubber tracks and without a bucket or quick coupler. The below values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground. Loads marked with an asterisk (\*) are limited by machine's hydraulic lifting capacity rather than tipping load. Caution: In accordance with EN 474-5, the machine must be equipped to carry out handling operations. It is the operator's obligation to know and follow the applicable national and local safety regulations.



	Lifting point height (B) m		Lifting point radius (A)						Max. m
			2.0 m		3.0 m		Max reach		
Arm: 950mm + Dozer blade up	2	kg	-	-	-	-	274	228	2.95
	1	kg	441*	374	260	216	225	187	3.32
	0	kg	430	349	252	209	224	185	3.28
	-1	kg	427*	349	-	-	238*	225	2.81
Arm: 950mm + Dozer blade down	2	kg	-	-	-	-	278*	228	2.95
	1	kg	441*	374	291*	216	263*	187	3.32
	0	kg	544*	349	295*	209	247*	185	3.28
	-1	kg	427*	349	-	-	238*	225	2.81
Arm: 1 150mm + Dozer blade up	2	kg	-	-	241*	222	228*	203	3.15
	1	kg	364*	364*	261	216	207	172	3.51
	0	kg	430	348	251	207	206	171	3.49
	-1	kg	425	344	235*	206	225*	202	3.06
Arm: 1 150mm + Dozer blade down	2	kg	-	-	241*	222	228*	203	3.15
	1	kg	364*	364*	274*	216	236*	172	3.51
	0	kg	549*	348	297*	207	229*	171	3.49
	-1	kg	455*	344	235*	206	225*	202	3.06
Arm: 1 150mm + Dozer blade down + Heavy counterweight	2	kg	-	-	241*	238	228*	220	3.15
	1	kg	364*	365*	274*	232	236*	185	3.51
	0	kg	549*	373	297*	223	229*	183	3.49
	-1	kg	455*	369	235*	221	225*	216	3.06

## DIMENSIONS

Description	Unit	EC15E		
Arm	mm	950	1 150	
A	Maximum cutting height	mm	3 439	3 582
B	Maximum dump height	mm	2 444	2 588
B*	Maximum bucket clearance	mm	2 482	2 625
C	Digging depth	mm	2 234	2 434
C*	Maximum digging depth	mm	2 474	2 670
D	Maximum vertical wall digging depth	mm	1 898	2 091
E	Maximum digging reach at ground level	mm	3 800	3 993
G	Highest position dozer blade	mm	221	
H	Lowest position dozer blade	mm	296	
J	Track length	mm	1 462	
K	Dozer blade, maximum reach at ground level	mm	1 028	
L	Overall width with 230mm tracks	mm	995	
M	Overall length	mm	3 550	3 431
M*	Transport length (arm lowered)	mm	3 755	3 768
P	Dozer blade height	mm	230	
Q	Shoe width (rubber)	mm	230	
R	Ground clearance to superstructure	mm	453	
S	Front slew radius	mm	1 455	1 476
T	Front slew radius with maximum offset	mm	1 181	1 184
U	Overall height cab	mm	2 334	
U*	Overall height canopy	mm	2 298	
X	Tail slew radius	mm	1 018	
X*	Rear overhang (across tracks)	mm	342	
β1	Maximum boom offset to the right	mm	418	
β2	Maximum boom offset to the left	mm	525	



## STANDARD EQUIPMENT

### Engine

Low emission, water-cooled, Volvo 3-cylinder diesel engine, meeting EPA Tier 4 and EU Stage V environmental regulations  
 Starter motor protected against ignition when engine is already running  
 Automatic engine cut-off in case of overheating or low oil level  
 Engine starting safety device: the left console must be raised to operate the starter

### Drivetrain

Axial piston hydraulic motors equipped with an epicyclic reduction gears  
 Inner flange bottom rollers lubricated for life

### Electric / Electronic control system

Maintenance-free battery  
 IP67 protected electrical system and high quality connectors  
 Battery disconnect connector  
 Two working lights on cab version  
 Working light on the canopy frame  
 12V power socket in cab with cellular phone storage

### Swing system

Radial piston hydraulic motor with integrated shockless valve  
 Automatic multi-disc spring applied hydraulic released slew brake

### Superstructure

Stamped steel panels all-around, recessed 10 to 15mm  
 4 integrated tie-down points on upper structure

### Undercarriage

230mm rubber tracks  
 Box welded fabricated frame  
 Box section highly rigid dozer blade structure  
 230mm rubber tracks

### Hydraulic system

High performance Volvo Hydraulic System  
 Flow-Sharing and Load Sensing main control valve  
 Boom cylinder cushioning at end stroke (up)  
 Patented filtering and filling element  
 Large side by side oil cooler and radiator  
 Double-acting hydraulic circuit for accessories  
 Hydraulic hoses routed inside the boom for increased protection

### Cab / Canopy

Cushionned operator station  
 Highly visible orange footstep  
 Highly visible orange seatbelt with warning indicator on display  
 Toolbox with integrated storage for operator's manual and lockable door

### Cab

Highly visible orange handrail  
 Flat toughened glass all-around  
 Heating systems with in-cab adjustment of temperature and air flow, and multiple air vents  
 Radio preparation (antenna, wire harness)

### Digging equipment

Casted end and structural parts on arm, pivot, undercarriage and upper structure nozzle  
 Monoblock box welded fabricated boom and arm  
 Long-life steel bushings & hardened, pre-lubricated and corrosion resistant pins  
 50-hours intervals on all grease points

### Machine controls

Automatic locking device for pilot controls and travel levers when the left console is raised  
 On/Off fingertip control for boom offset and auxiliary circuit  
 Pressure accumulator to lower the equipment on the ground

### Instrumentation and monitoring

Permanent digital hour meter visible from outside cab  
 Engine temperature and fuel level gauges

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.

## STANDARD EQUIPMENT

### Official approval

Machine conforming to European directive 2006/42/EC  
 Noise emissions in the environment conforming to directive 2000/14/EC  
 Hand Arm Vibrations - Whole Body Vibrations compliant with directive 2002/44/EC  
 Electromagnetic compatibility (EMC) conforming to European directive 2004/108/EC and its amendments  
 Object handling device conforming to EN 474-1 and EN 474-5 standards  
 ROPS (Roll-Over Protective Structure) conforming to ISO 3471-1 and SAE J1040 standards  
 TOPS (Tip-Over Protective Structure) conforming to ISO 12117 and EN 13531 standards  
 OPG 1 (Operator Protective Guard on top) conforming to ISO 10262 standard (when equipped)

## OPTIONAL EQUIPMENT

### Operator environment

Robust 4-pillar structure canopy  
 Heated cab  
 Vinyl seat with mechanical suspension, low back and 2" orange seatbelt  
 Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 2" orange retractable seatbelt  
 Vinyl seat with mechanical suspension, extended back with lumbar adjustment and 3" retractable seatbelt  
 Fabric seat with mechanical suspension, low back and 2" orange seatbelt  
 Fabric seat with mechanical suspension, extended back with lumbar adjustment and 2" orange retractable seatbelt  
 Fabric seat with mechanical suspension, extended back with lumbar adjustment and 3" retractable seatbelt  
 Additional lockable storage box (behind the seat)  
 Radio, AUX, USB, Bluetooth  
 Anti-theft, code lock  
 Anti-theft, coded key  
 Controls lock, switch  
 Controls lock, seat operator presence and switch  
 Controls lock, seatbelt sensor  
 Tool kit

### Machine exterior

Left/Right rearview mirror  
 One protected worklight on the boom  
 One rear worklight  
 Rotating beacon  
 LED worklights package  
 Green beacon link to safety belt  
 Heavy counterweight  
 Several level of customisation (RAL specifications) to match with your corporate identity

### Hydraulics

Relief valve for auxiliaries  
 Kit 2 flat face hydraulic couplings  
 Boom and arm safety lifting valves  
 Boom, arm and dozer blade safety lifting valves  
 Several grades of mineral and bio hydraulic oil

### Digging equipment

Short arm  
 Long arm

### Attachments

Volvo mechanical quick coupler (pin-on)  
 Lehnhoff® mechanical quick coupler  
 Symmetrical type mechanical quick coupler (S30)  
 General Purpose buckets  
 Fixed Ditching buckets  
 Tiltable Ditching buckets  
 Hydraulic breaker HB02LN

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