

V O L V O



Volvo Compact Excavators 1.56-1.84 t 16.3 hp

EC15E

Volvo Construction Equipment

EC15E



Compact machine, big potential



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



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



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

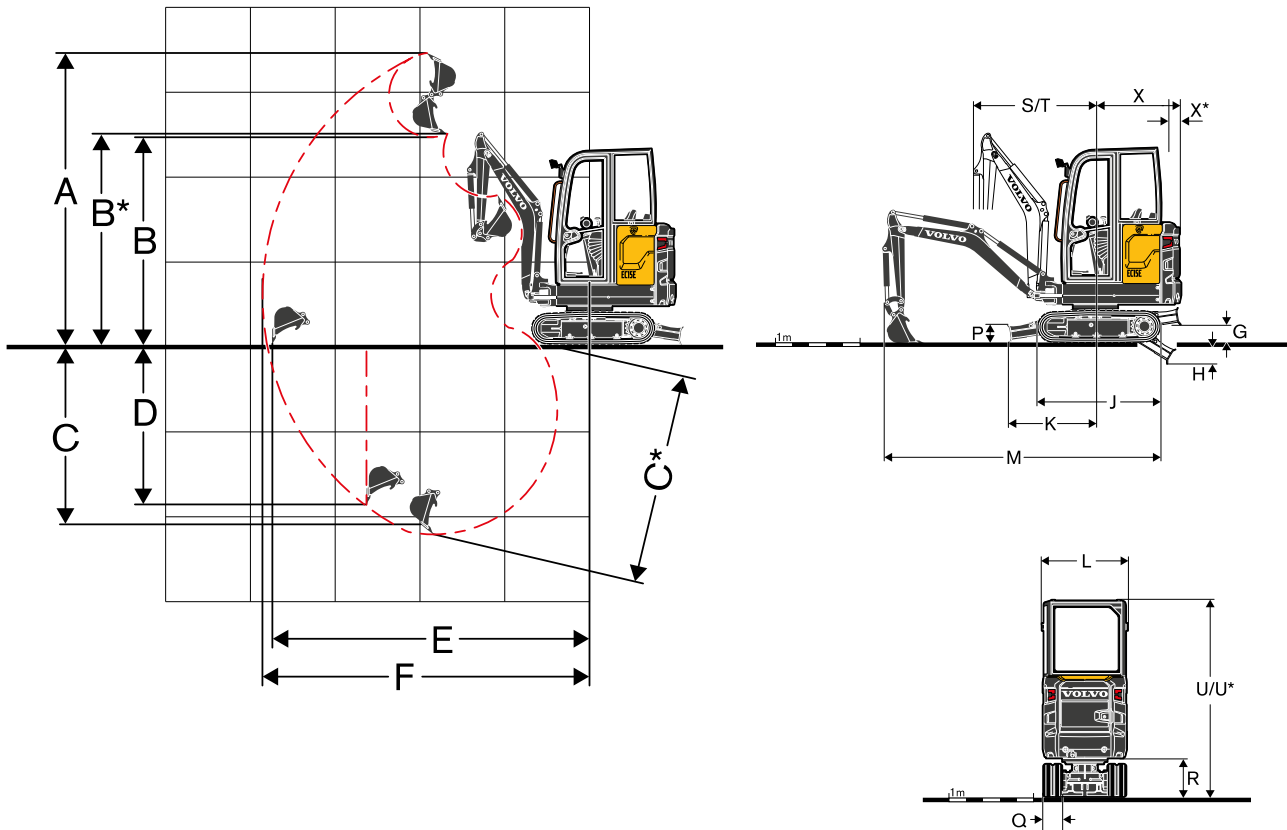
- Range of Volvo buckets and quick couplers
- Matched Volvo breaker
- Genuine Volvo Parts
- Volvo Financial Services

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 ³	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		
L _{pA}	dB	78
External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006 +A1:200		
L _{WA}	dB	93

Specifications



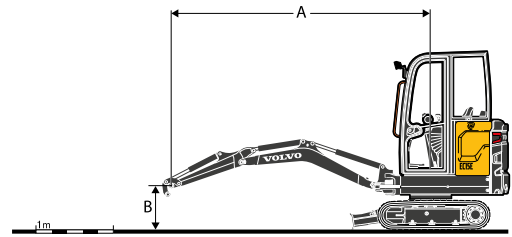
DIMENSIONS


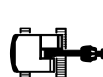

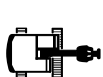

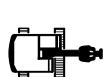
Description		Unit	EC15E	
Arm		mm	950	1 150
A	Maximum cutting height	mm	3 439	3 582
B	Maximum dump height	mm	2 444	2 588
B*	Maximum bucket clearance	mm	2 482	2 625
C	Digging depth	mm	2 234	2 434
C*	Maximum digging depth	mm	2 474	2 670
D	Maximum vertical wall digging depth	mm	1 898	2 091
E	Maximum digging 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
β_1	Maximum boom offset to the right	mm		418
β_2	Maximum boom offset to the left	mm		525

Specifications

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

Equipment

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 noze

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 control system

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

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)

FOPS (Falling Object Protective Structure) conforming to EN ISO 3449

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

Hydraulic equipment

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

Tilttable Ditching buckets

Hydraulic breaker HB02LN

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.

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