

Document Title: Position of components	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Position of components

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

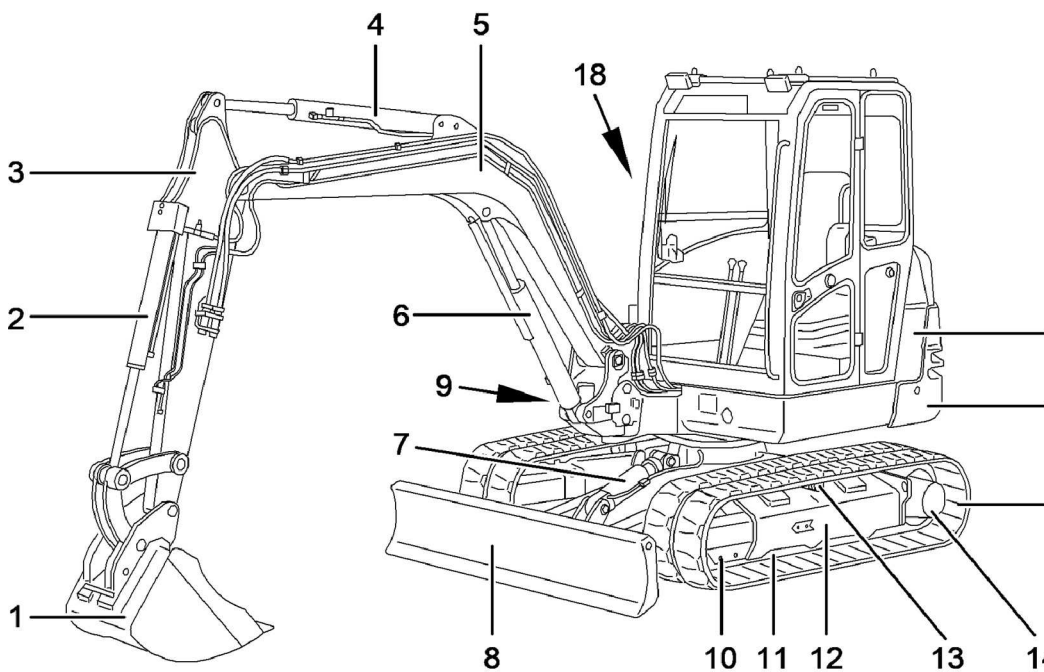


Figure 1
Position of components

- | | |
|----------------------------|---------------------------------------|
| 1 Bucket | 10 Tensioning wheel |
| 2 Bucket cylinder | 11 Rollers |
| 3 Dipper, standard version | 12 Main chassis |
| 4 Dipper cylinder | 13 Top roller |
| 5 Boom | 14 Track sprockets/travel gear motors |
| 6 Boom cylinder | 15 Tracks |
| 7 Dozer blade cylinder | 16 Slewing superstructure |
| 8 Dozer blade | 17 Engine cover |
| 9 Boom offset cylinder | 18 Hydraulic compartment cover |

Document Title: Warning and information decals	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Warning and information decals

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

The driver must be acquainted with and observe all warning and information decals, which are attached to the machine.

- Stickers and decals, which are missing or have been damaged, must be immediately replaced.
- Apart from that the decals must be kept in a legible, i.e. clean condition.
- The spare parts number (ordering number) is printed on the respective decal or can be found in the spare parts catalogue.

Document Title: Caution sign - Operation and maintenance	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Caution sign - Operation and maintenance

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Before starting operation of the machine read the instructions and warnings in the operating instructions carefully. The technical documents can be found storage compartment under the driver's seat.

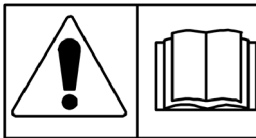


Figure 1

Document Title: Warning sign - Open engine hood only with engine stopped	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Warning sign - Open engine hood only with engine stopped

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Due to the risk of injury by rotating parts it is dangerous to open the engine hood while the engine is running.

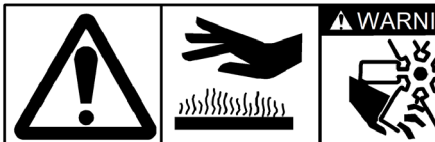


Figure 1

Document Title: Foreword	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Foreword

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

This edition of the workshop manual contains technical data, instructions for repair, inspection and adjustments as well as drawings and circuit diagrams for type EC45.

Dimensions and weights for the complete machine can be found in the operating instructions.

Maintenance work on the machine must only be performed after reading the instructions in the chapter "Safety".

Reference numbers for the individual manuals can be taken from the up-to-date publication catalogue and the SSI (Service Support Informations).

The operation numbers refer to the "time list".

The instructions are based on the use of special tools, electrical tools and commercially available standard tools.

We do not assume liability if any lifting gear, tools or working methods are used other than the ones described hereunder.

All information and data contained in this workshop manual are valid at the date of printing.

We reserve the right to change specifications and equipment without prior notification.

A complete set of the workshop manual EC45 consists of the following:

Folder		Ref.-No:
1-2	Binder part, chapter S-9	VOE21A1001526
1	Binder part, chapter S-4	VOE21A1001527
2	Binder part, chapter 5-9	VOE21A1001528
Chapter		
S	Safety	VOE21A1001229
0	Technical data	VOE21A1001529
1	Service and maintenance	VOE21A1001530
2	Engine	VOE21A1001531
3	Electrical system	VOE21A1001532
4	Power transmission	VOE21A1001533
5	Brake	VOE21A1001534
6	Steering	VOE21A1001535
7	Frame and wheels	VOE21A1001536
8	Cab and interior	VOE21A1001537
9	Hydraulic system	VOE21A1001538

Document Title: Warning sign - Safety distance from the work area	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Warning sign - Safety distance from the work area

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

It indicates that a sufficient safety distance from the working area of the machine must be maintained, to avoid bodily injury.

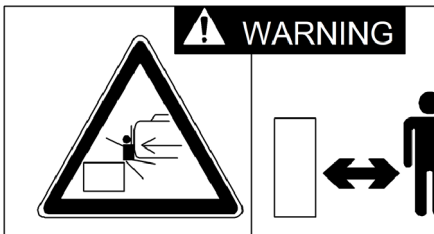


Figure 1

Document Title: Warning sign - Safety distance from the movement area	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Warning sign - Safety distance from the movement area

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

This sticker indicates that a sufficient distance to the movement area of the excavator arm must be maintained, to avoid bodily injury.



Figure 1

Document Title: Caution sign - Track tension	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Caution sign - Track tension

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Sticker stuck to the roof inside the cab.
It indicates that the tension of the tracks must be checked every day.

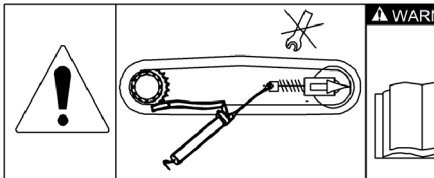


Figure 1

Document Title: Caution sign - Diesel engine starting procedure	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
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Caution sign - Diesel engine starting procedure

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Sticker stuck to the roof inside the cab.
It indicates the starting procedure for the diesel engine.

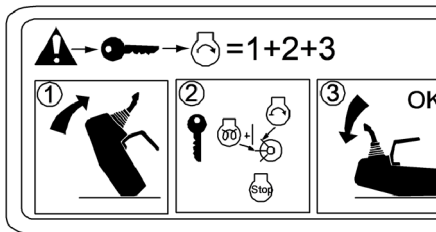


Figure 1

Document Title: Caution sign - Lifting the machine	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Caution sign - Lifting the machine

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Sticker stuck to the roof inside the cab.

It indicates that only these specific lifting points must be used to lift the machine.

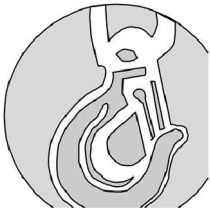


Figure 1

Document Title: Caution sign - Lashing	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Caution sign - Lashing

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Sticker stuck to the roof inside the cab.
It indicates that only these fastening points must be used.

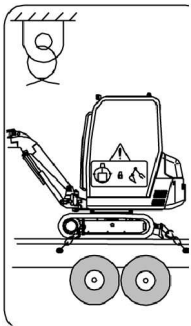


Figure 1

Document Title: Caution sign - Emergency exit	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Caution sign - Emergency exit

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Sticker stuck to the rear windscreen of the cabin indicating the location of the emergency exit (the window must be smashed with the hammer provided for this purpose and stored inside a support on the rear cabin wall).



Figure 1

Document Title: Machine identification	Function Group: 000	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Machine identification

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

The following illustration and description shows which identification plates are on the machine.

When ordering spare parts or in case of enquiries by phone or in writing the model designation and the product identification number (PIN) must always be specified.

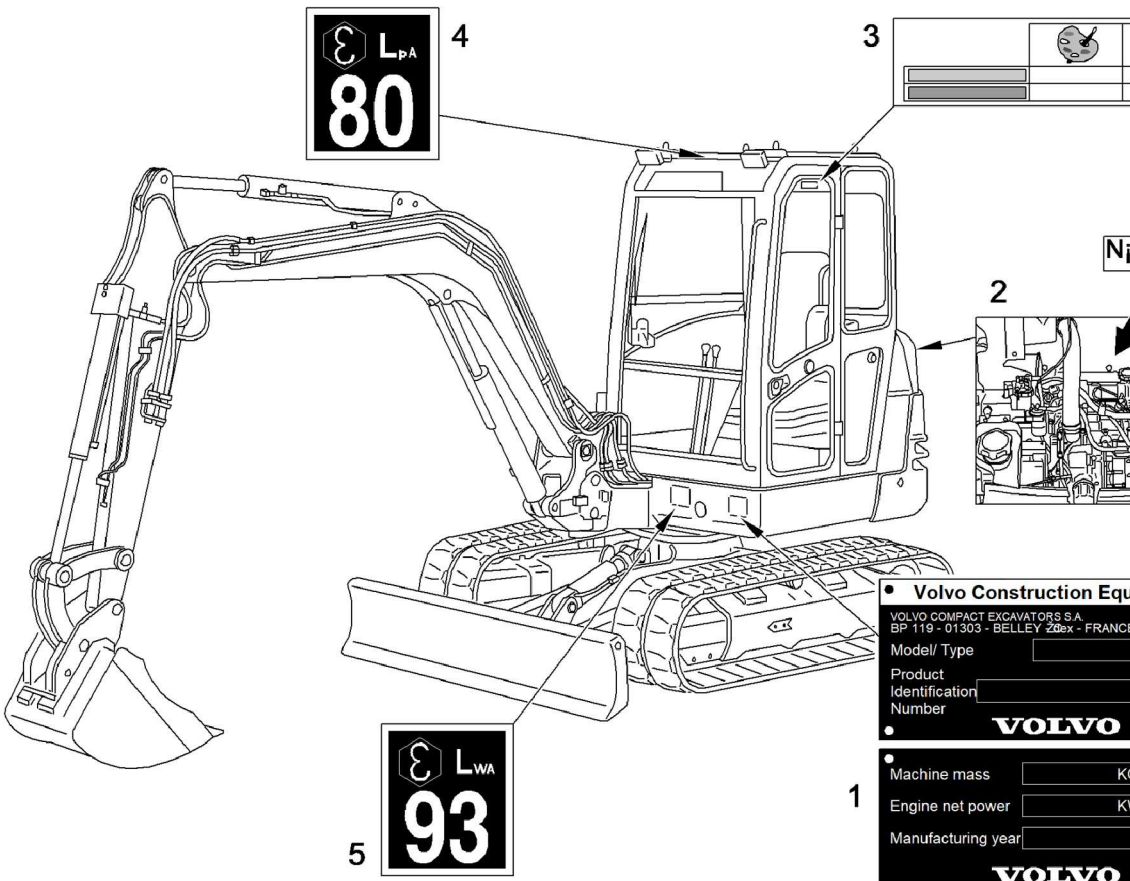


Figure 1
Machine identification

1. Product plate with product identification number (PIN) for the complete machine, model designation, weight of machine, engine power and year of manufacture. The plate is located on the front of the rotating chassis.
2. The identification of the engine is inscribed on the rocker cover.
3. Paint finish, cabin type, type approval and serial number can be found on the rear roof beam of the cabin.
4. Sound pressure level in the cabin
5. Sound capacity of nthe machine

Document Title: Main dimensions EC 45	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Main dimensions EC 45

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

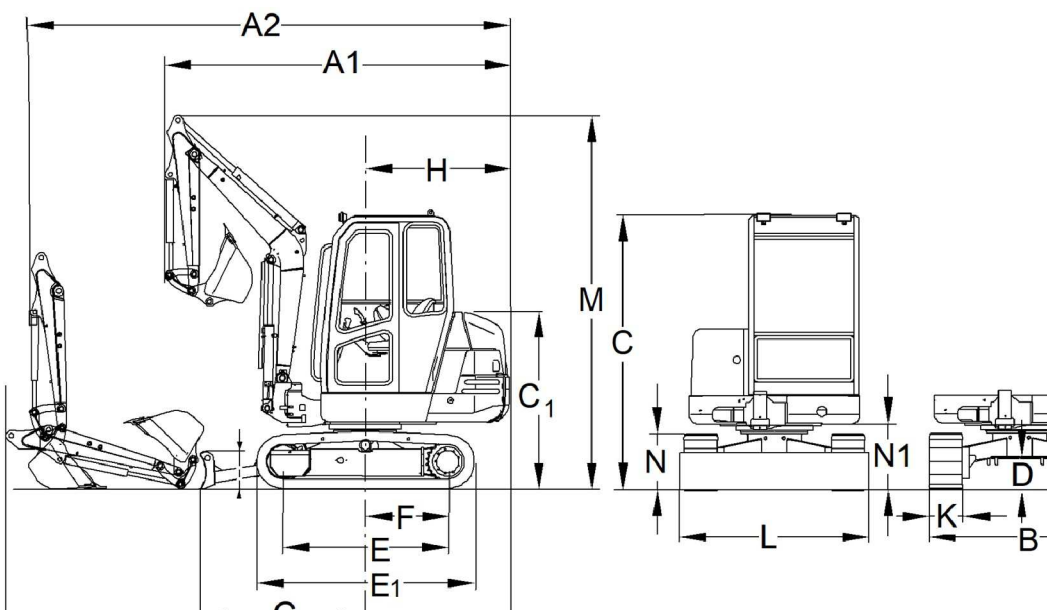


Figure 1
Dimensions of the machine

Type				EC45	
		Symbol	Unit	Arm: 1400	Arm: 1700
Overall height	Dozer blade	I	mm	370	370
	Boom	M	mm	3863	3864
	Driver's cabin	C	mm	2514	2514
	Engine cover	C1	mm	1610	1610
Ground clearance	Lower frame	D	mm	320	320
	Superstructure	N1	mm	650	650
Overall length		A	mm	5284	5286
Distance between chain sprockets		E	mm	1770	1770
Overall width	Boom raised	A1	mm	3735	3794
	Boom on Bucket	A2	mm	5018	4875
	Rotation point end of cabin	H	mm	1412	1412

Type	EC45
------	------

		Symbol	Unit	Arm: 1400	Arm: 1700
Lower frame	Width of bottom plate	K	mm	400	400
	Width of dozer blade	L	mm	1850	1850
	Overall width	B	mm	1800	1800
	Length of track	E1	mm	2280	2280
	Width of bottom plate	N	mm	552	552
	Rotation point - dozer blade	G	mm	1616	1616
	Rotation point - centre of sprocket	F	mm	890	890

Document Title: Load capacity tables EC 45	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Load capacity tables EC 45

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

- Rated handling loads in kg, i.e. 75% of the tipping load or 87% of the hydraulic limit. (* = hydraulic limit)
These loads apply for the complete height concerned (Z.), for the specified reach. Increase by 3% for steel tracks, except the values marked with * (hydraulic limits).

The specified values are valid for a machine:

- without attachment and without quick coupling.
If handling is accomplished in lifting gear operation with an assembled tool and/or assembled standard connecting system, the weight of these attachments must be subtracted from the values stated in the table.
- On level, compact ground.
- With full rotation of the superstructure.
- On rubber tracks.
Equipment parallel to the axis of the superstructure.
- With a 75 kg driver in the cab.

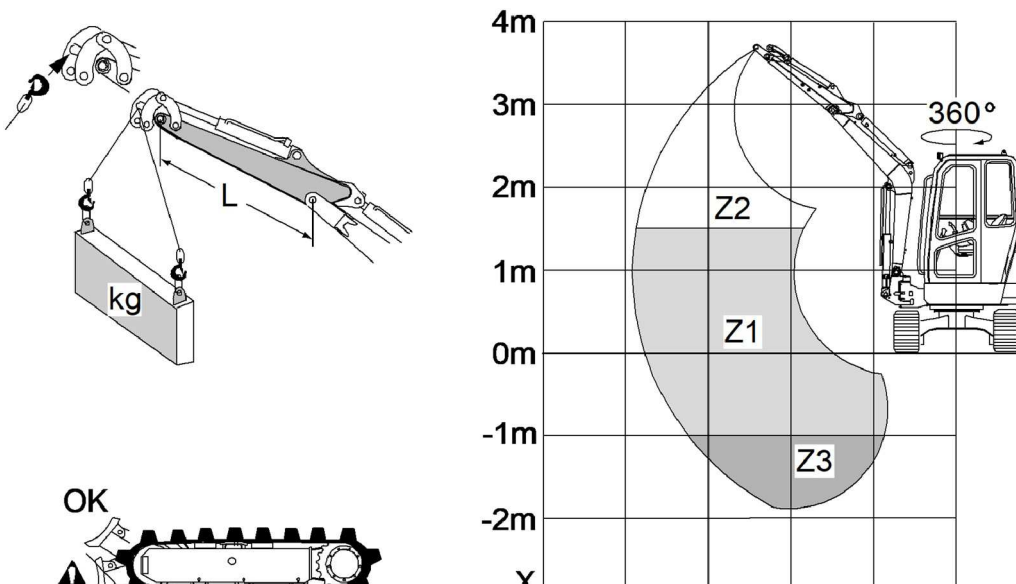


Figure 1

Document Title: Fuel, lubricant and filling capacities	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Fuel, lubricant and filling capacities

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			









Use	Quantity	Quality	Viscosity
Hydraulic system	37 l	DIN 51525 H-LP ISO 6743/4 quality HV Hydrelf BIO 46	ISO-VG-68 ISO-VG-46 ISO-VG-32
Travel gear	approx. 2 x 0.8 l	0.8 l API: GL 5 MIL-L 2105 D	SAE 80W/90
Lubrication grease	-	ISO 6743/0 quality X	-

Document Title: Load capacity tables EC 45	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Load capacity tables EC 45

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

		 E250611A	 E250611A	 E250611A	 E250611A	 E250611A	 E250611A	 E250611A	 E250611A
X(m)	>	1,5	2	2,5	3	3,5	4	4,5	4,9
L: 1,4 m	Z2			1165*	805*	735*	700	595	
	Z1	1690*	1825	1290	1000	815	680	585	
	Z3	2515	1840	1305	1005	815	690		
L: 1,7 m	Z2			1320*	830*	625*	675*	590	
	Z1	1530*	1650*	1275	985	800	670	575	515
	Z3	2150*	1805	1280	985	800	670		

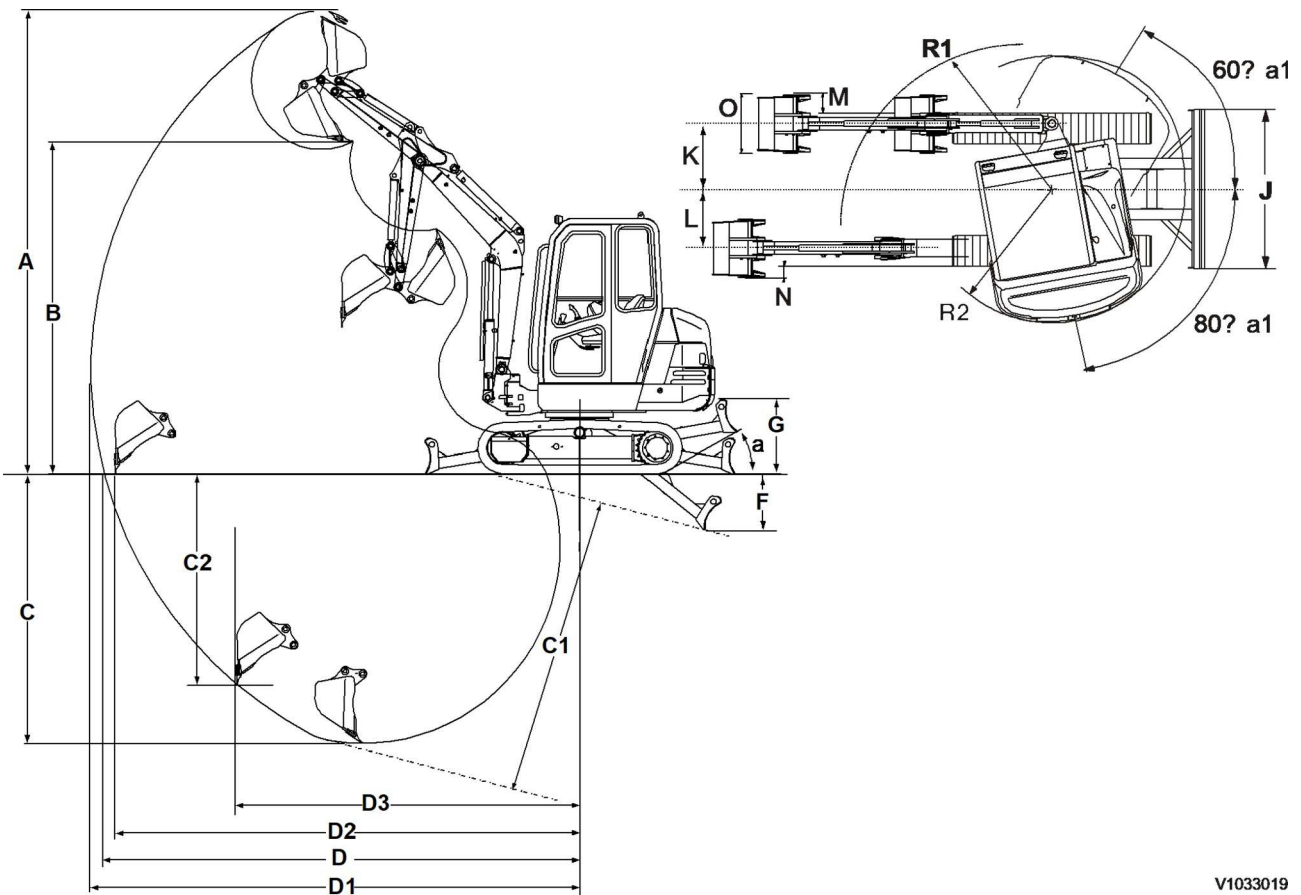
(*) hydraulic limit

Document Title: Reach of the working attachment EC 45	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Reach of the working attachment EC 45

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			



V1033019

Figure 1
Bucket configuration

Document Title: Reach EC 45	Function Group: 030	Information Type: Service Information	Date: 2017/7/7 0
Profile: EC45 Volvo			

Reach EC 45

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
EC45 Volvo			

Type	EC45		
Excavator equipment	Unit	Arm: 1400	Arm: 1700
A	mm	4930	5080
B	mm	3520	3670
C	mm	3620	3910
C1	mm	3619	3906
C2	mm	1992	2267
D	mm	5382	5666
D1	mm	5501	5778
D2	mm	4635	4666
D3	mm	4356	4476
F	mm	479	479
G	mm	411	411
J	mm	1850	1850
K	mm	700	700

Reach

Type	EC45		
Excavator equipment	Unit	Arm: 1400	Arm: 1700
L	mm	500	500
M	mm	97	97
N	mm	101	101
O	mm	600	600
R1	mm	1420	1420
R2	mm	1858	1911









Slewing range

Type	EC45	
Boom offset angle	a1 = 60°	a2 = 80°
Total slewing range	360°	

Bucket performances

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