

Document Title:  Main dimensions	Function Group: <b>000</b>	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### **Main dimensions**

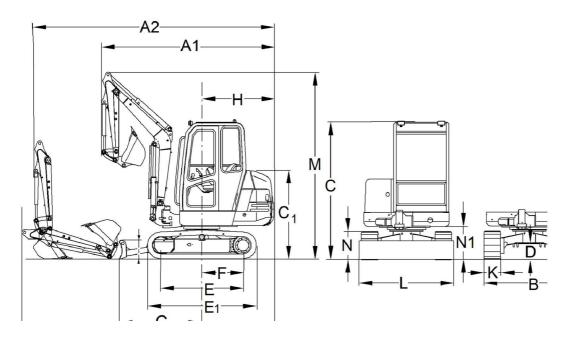


Figure 1
Dimensions of the machine

		Symbol	Unit	Arm: 1200	Arm: 1500
Overall height	Dozer blade	I	mm	340	340
	Boom	М	mm	3290	3290
	Driver's cabin	С	mm	2450	2450
	Engine cover	C1	mm	1550	1550
Ground clearance	Lower frame	D	mm	280	280
	Superstructure	N1	mm	570	570
Overall length		A	mm	4470	4470
Distance between chain spr	ockets	E	mm	1440	1440
Overall width	Boom raised	A1	mm	3100	3100
	Boom on bucket	A2	mm	4210	4210
	Rotation point end of cabin	Н	mm	1260	1260

		Symbol	Unit	Arm: 1200	Arm: 1500
Lower frame	Width of bottom plate	K	mm	300	300
	Width of dozer blade	L	mm	1530	1530
	Overall width	В	mm	1480	1480
	Length of track	E1	mm	1910	1910

Width of bottom plate	N	mm	510	510
Rotation point - dozer blade	G	mm	1440	1440
Rotation point - centre of sprocket	F	mm	720	720



### **Service Information**

Document Title: Position of components	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### **Position of components**

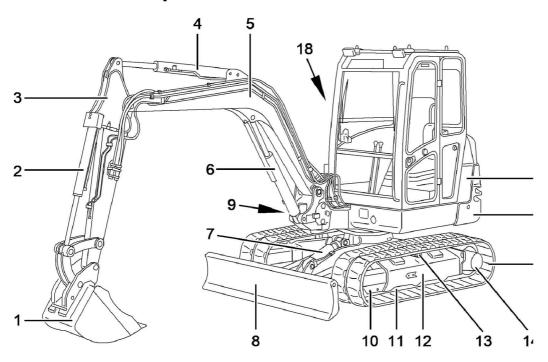


Figure 1 Position of components

- 1 Bucket
- 2 Bucket cylinder
- 3 Dipper, standard version
- 4 Dipper cylinder
- 5 Boom
- 6 Boom cylinder
- 7 Dozer blade cylinder
- 8 Dozer blade
- 9 Boom offset cylinder

- 10 Tensioning wheel
- 11 Rollers
- 12 Main chassis
- 13 Top roller
- 14 Track sprockets/travel gear motors
- 15 Tracks
- 16 Slewing superstructure
- 17 Engine cover
- 18 Hydraulic compartment cover

Construction Equipment

Document Title:  Caution sign - Diesel engine starting procedure	 71	Date: 2017/7/7 0
Profile:		

## **Caution sign - Diesel engine starting procedure**

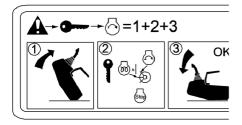


Figure 1

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



**Construction Equipment** 

Document Title: <b>Caution sign - Emergency</b> <b>exit</b>	Information Type: Service Information	Date: <b>2017/7/7 0</b>
Profile:		

## **Caution sign - Emergency exit**

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).



Construction Equipment

Document Title: <b>Caution sign - Lashing</b>	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

## **Caution sign - Lashing**

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



Figure 1



Construction Equipment

Document Title:  Caution sign - Lifting the machine	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

## **Caution sign - Lifting the machine**

Sticker stuck to the cabin roof inside the cab.

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



Figure 1



**Construction Equipment** 

Document Title:  Caution sign - Operation and maintenance	'	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### **Caution sign - Operation and maintenance**

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



Construction Equipment

Document Title: Caution sign - Track tension	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

## **Caution sign - Track tension**

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



Document Title: Identification of the engine	•	Information Type: Service Information	Date: <b>2017/7/7 0</b>
Profile:			

## Identification of the engine

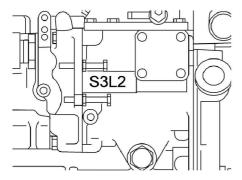


Figure 1

The identification of the engine is stamped on the right hand side of the engine block near the injection pump mounting bracket.

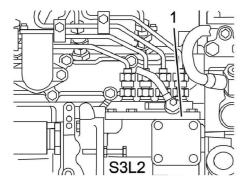


Figure 2

#### 1. Serial number

The serial number is stamped on the engine block near the injection pump mounting bracket.



**Construction Equipment** 

Document Title:	Function Group:	Information Type: Service Information	Date:
Load capacity tables	<b>020</b>		2017/7/7 0
Profile:			

### **Load capacity tables**

			E250541A							
	X(m)	>	1.5	2	2.5	3	3.5	3.9	4	4.2
Α		Z2		975	710*	540	430			
	L:	Z1	1470	905	655	515	420	360		
	1.2 m	Z3	1490	925	665	520				
		Z2		885*	710	470*	430		350	
	L:	Z1	1015*	900	650	505	410		345	325
	1.5 m	Z3	1465	910	655	510	415			
В		Z2		915	656	505	400			
	L:	Z1	1380	850	615	480	390	335		
	1.2 m	Z3	1395	865	620	485				
		Z2		885*	665	470*	400		330	
	L:	Z1	1015*	845	610	470	385		320	300
	1.5 m	Z3	1375	850	610	475	390			
										[T1] <sup>①</sup>

#### [T1](\*) hydraulic limit

O 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).



Transport of objects in lifting gear operation is not permitted when the machine: – is supported by the dozer blade.

Document Title: Load capacity tables	Function Group: <b>020</b>	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### Load capacity tables

O 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).

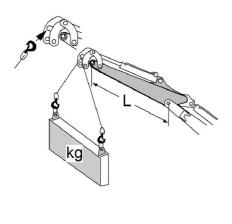


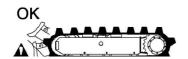
Transport of objects in lifting tackle operation is not permitted when the machine is supported by the dozer blade.

#### The specified values are valid for a machine:

- O 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.
- O On level, compact ground.
- O With full rotation of the superstructure.
- O On rubber tracks.
- Equipment parallel to the axis of the superstructure.
- O With a 75 kg driver in the cab.





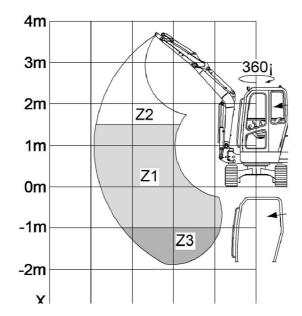


Figure 1



Document Title:  Machine identification	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### **Machine identification**

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 produc identification number (PIN) must always be specified.

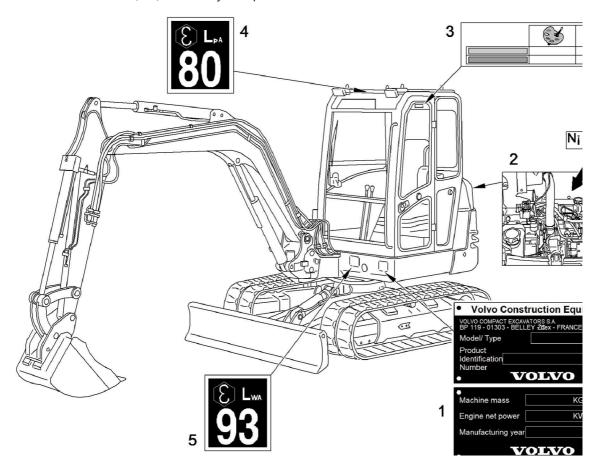


Figure 1
Machine identification

- 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
- 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:  Reach of the working attachment	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

## Reach of the working attachment

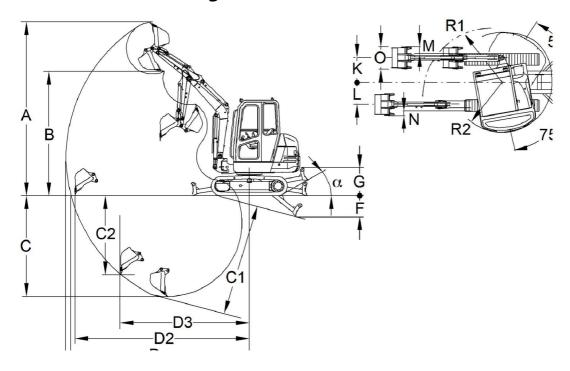


Figure 1 Bucket configuration



Document Title: Reach, unit: mm	! ·	Information Type: Service Information	Date: 2017/7/7 0
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## Reach, unit: mm

Excavator equipment	Arm: 1200	Arm: 1500
A	4330	4420
В	3130	3320
C	2520	2820
C1	2840	3140
C2	2000	2290
D	4460	4750
D1	4580	4870
D2	4430	4720
D3	3100	3170
F	520	520
G	700	700
G1	390	390
J	1530	1530
K	630	630

#### Reach, unit: mm

Excavator equipment	Arm: 1200	Arm: 1500
L.	450	445
M	140	140
N	40	40
O	500	500
R1	1450	1450
R2	1270	1270

#### Slewing range

Boom offset angle	a1 = 55°	a2 = 75°
Total slewing range	360°	

#### **Bucket performances**

Digging force	2180 daN
Tear-out force	1490 daN



**Construction Equipment** 

Document Title: Warning and information decals	Information Type: Service Information	Date: 2017/7/7 0
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### Warning and information decals

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

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



Figure 1



Construction Equipment

Document Title: Warning sign - Open engine hood only with engine stopped	i '	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### Warning sign - Open engine hood only with engine stopped

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



Figure 1



Construction Equipment

Document Title: Warning sign - Safety distance from the movement area	'	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

### Warning sign - Safety distance from the movement area

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

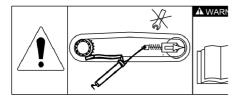


Figure 1



Construction Equipment

Document Title: Warning sign - Safety distance from the work area	· ·	Information Type: Service Information	Date: <b>2017/7/7 0</b>
Profile:			

### Warning sign - Safety distance from the work area

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: Chapter 2 Engine	•	Information Type: Service Information	Date: 2017/7/7 0
Profile:			

# **Chapter 2 Engine**

Engine	S3L - 61A	S3L2 - 61	
Туре	Four stroke inline diesel engine, water cooled		
Firing sequence (injection sequence)	1 - 3 - 2		
Compression	22 : 1		
Type of combustion chamber	Swirl chamber		
Weight, kg	125		
Number of cylinders	3		
Bore x stroke, mm	78 x 78.5	78 x 92	
Displacement, litres	1.125	1.318	
Compression pressure	32 bar		
Max. permissible pressure deviation between cylinders	31	3 bar	
Idle speed	900 + 100 rpm		
Full speed	2400 + 20 rpm		
Installed net power (ISO 9249)	17.1 kW at 2200 rpm		
Maximum torque	77 kW at 1600 rpm		
Cooling	Centrifugal water pump with temperature control		
Air filter	D	ry	

Valve system		
Valve clearance (warm or cold engine)		
Intake valve	0.25 mm	
Exhaust valve	0.25 mm	

Lubrication system	
Туре	Forced feed (by cycloidic pump)
Oil pressure	3.45 ± 0.5 bar
Oil filter	Paper element (full-flow)

Fuel lift pump		
Туре	Electrical (diaphragm)	
Power at 220 °C and a terminal voltage of 12 V DC	300 cm³/min minimum or	
	400 cm³/min maximum	

### **Chapter 2 Engine**

Injection pump	
Туре	Series injection pump
Manufacturer	Bosch M

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