

Document Title: Caution sign - Fuel	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Caution sign - Fuel

See the lubrication table for the required grade.



Figure 1

Document Title: Caution sign - Hydraulic oil	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Caution sign - Hydraulic oil

See the lubrication table for the required grade.

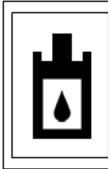


Figure 1

CAUTION

If the hydraulic system is filled with biodegradable hydraulic oil from the factory (see sticker on filler neck), only the oil quality specified on the sticker must be used to fill up or when changing the oil.

Document Title: Caution sign - Lashing	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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Caution sign - Lashing

Fastening points for transport of the machine.

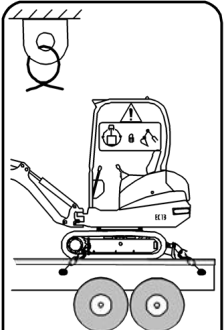


Figure 1

Document Title: Caution sign - Loading or Unloading/Lifting	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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Caution sign - Loading or Unloading/Lifting

Fastening points for lifting the machine.

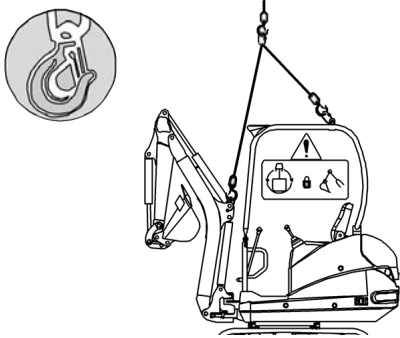


Figure 1

Document Title: Caution sign - Operation and maintenance	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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Caution sign - Operation and maintenance

The instructions and warnings in the operating manual must be read carefully before using the machine for the first time. The technical documentation can be found in the storage compartment under the driver's seat.

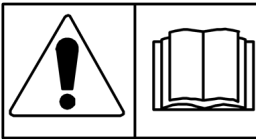


Figure 1

Document Title: Caution sign - Sound capacity level	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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Caution sign - Sound capacity level

Sound capacity level (**L_{WA}**) around the machine.



Figure 1

Document Title: Caution sign - Track tension	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Caution sign - Track tension

It indicates that the tension of the tracks must be checked every day.

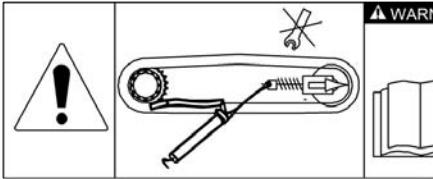


Figure 1

Document Title: Identification of the engine	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Identification of the engine

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

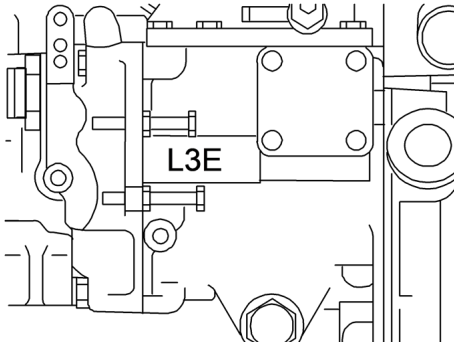


Figure 1

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

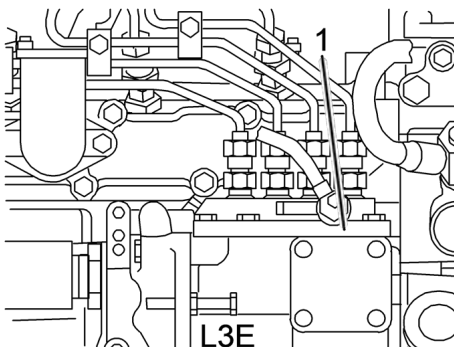


Figure 2
Serial number

Document Title: Machine identification	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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 product identification number (PIN) must be specified.

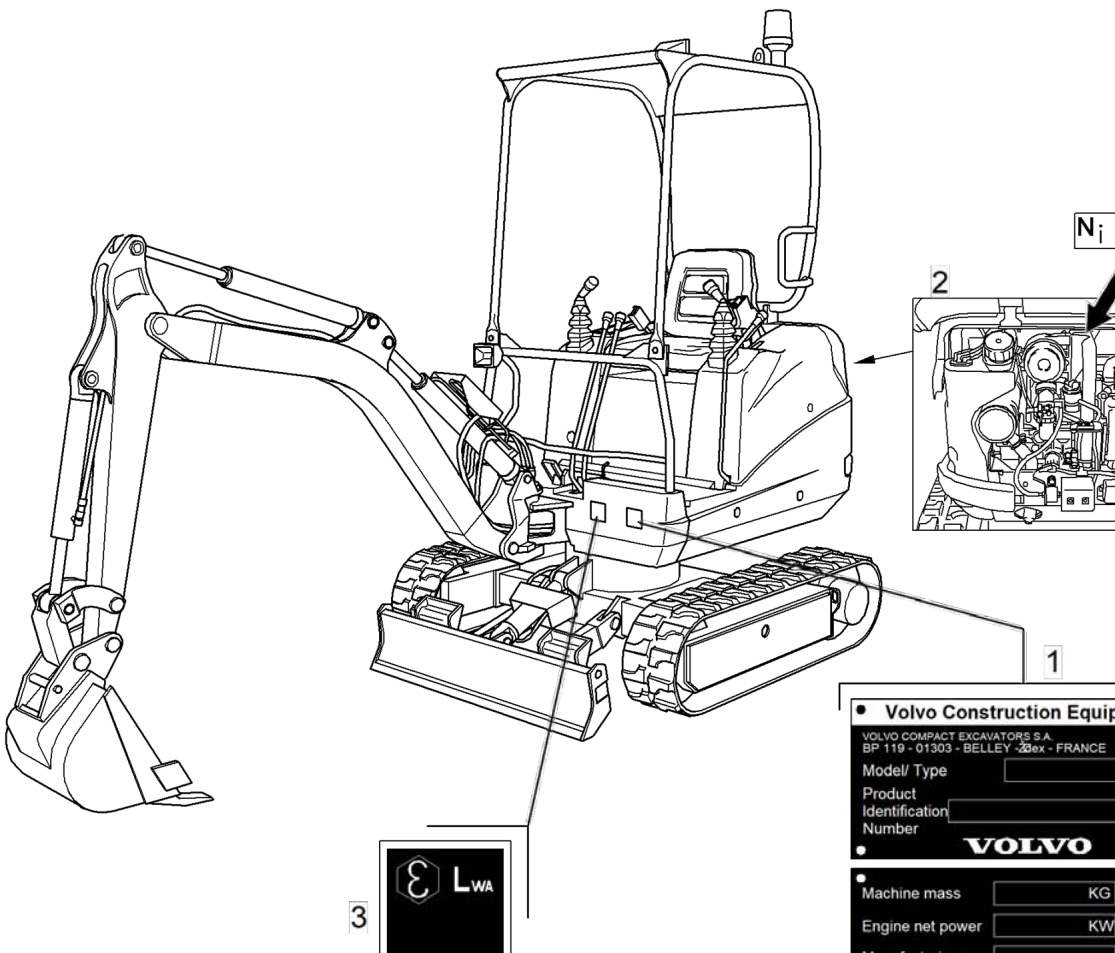


Figure 1
Machine identification

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 rockerarm cover.
3. Sound capacity level around the machine.

Document Title: Position of components	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Position of components

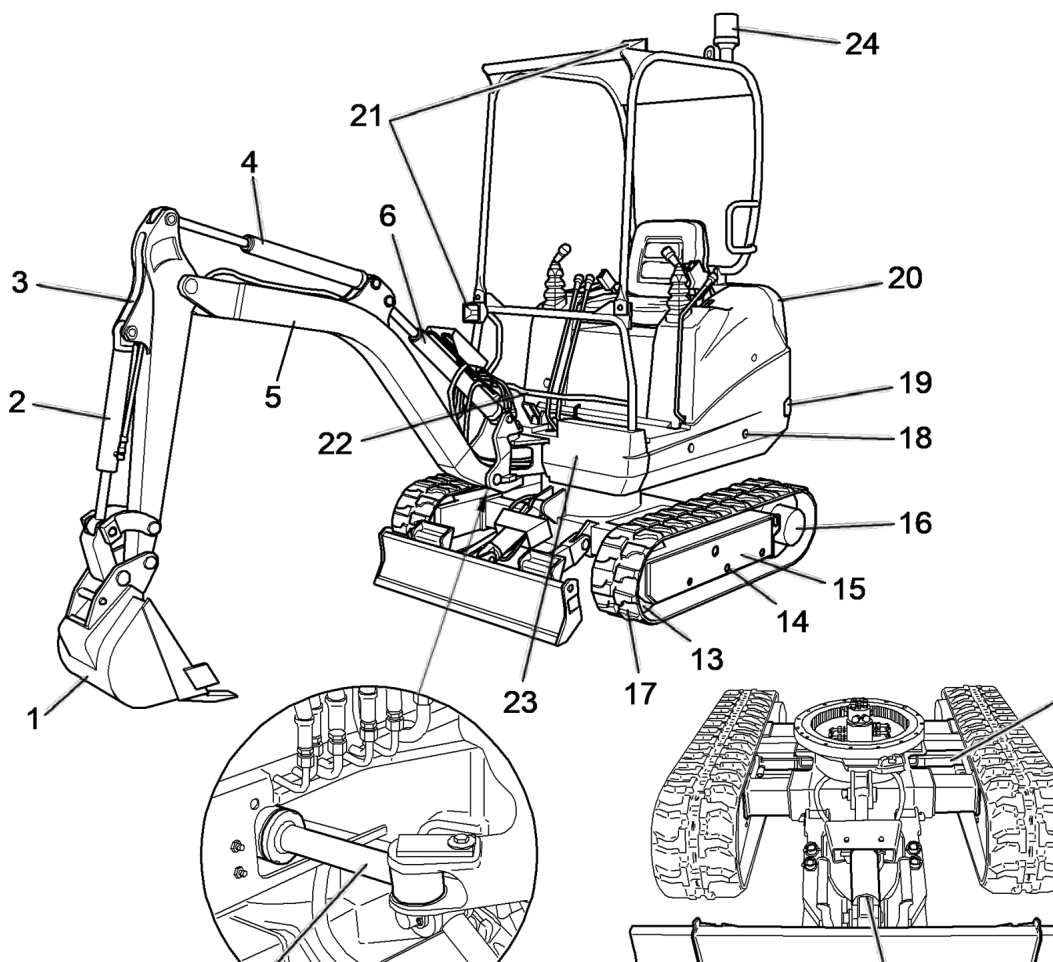


Figure 1
Position of components

- | | |
|---|---------------------------------------|
| 1 Bucket | 13 Tensioning wheel |
| 2 Bucket cylinder | 14 Rollers |
| 3 Dipper, standard version | 15 Main chassis |
| 4 Dipper cylinder | 16 Track sprockets/travel gear motors |
| 5 Boom | 17 Tracks |
| 6 Boom cylinder | 18 Slewing superstructure |
| 7 Dozer blade cylinder | 19 Counter weight |
| 8 Dozer blade | 20 Engine compartment |
| 9 Dozer blade extension, right (depending on equipment) | 21 Working headlights |
| 10 Dozer blade extension, left (depending on equipment) | 22 Horn |
| 11 Boom offset cylinder | 23 Identification plate |

12 Cylinder for track width adjustment
(only for version XTV)

24 Flashing beacon

Document Title: Warning and information decals	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Warning and information decals

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: Warning sign - Open engine hood only with engine stopped	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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.

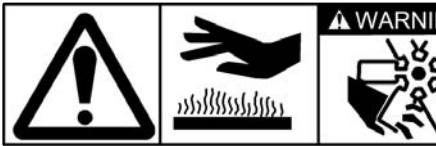


Figure 1

Document Title: Warning sign - Safety distance from the movement area	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
Profile:			

Warning sign - Safety distance from the movement area

This sticker indicates that a sufficient safety distance to the movement zone of the excavator arm must be maintained, in order to rule out any danger of injury.



Figure 1

Document Title: Warning sign - Safety distance from the work area	Function Group: 000	Information Type: Service Information	Date: 2018/4/13
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Warning sign - Safety distance from the work area

It shows that a sufficient safety distance to the action range of the machine must be maintained to avoid injury.

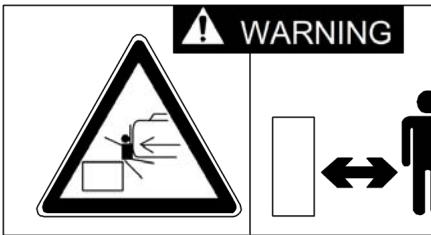


Figure 1

Document Title: Dimensions in millimetre (mm)	Function Group: 030	Information Type: Service Information	Date: 2018/4/13
Profile:			

Dimensions in millimetre (mm)

The technical machine data is for informational purposes only and can be changed by the manufacturer without prior notification.

Version	Unit	XR		XTV	
		900	1050	900	1050
A	mm	3563	3970	3558	3965
A1	mm	2510	2572	2510	2572
A2	mm	3320	3314	3328	3322
B (XTV: min/max)	mm	950		956	1306
C	mm	2199		2223	
D	mm	213		162	
E	mm	1085		1085	
E1	mm	1467		1467	
F	mm	620		620	
G	mm	857		876	

Version	Unit	XR		XTV	
		900	1050	900	1050
H	mm	1023		1023	
I	mm	243		243	
K	mm	200		200	
L only blade	mm	980		995	
L blade and track width	mm			1345	
M	mm	2352		2352	
N	mm	385		385	
N1	mm	450		473	
a Offset angle	mm	a1=57° / a2=71°		a1=57° / a2=71°	
Total swashing angle	mm	360°		360°	

Document Title: Electrical system	Function Group: 030	Information Type: Service Information	Date: 2018/4/13
Profile:			

Electrical system

System voltage	12 V
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Battery	
Quantity	1 unit
Battery disconnecting switch (ground connection)	Connection to negative pole
Voltage	12 V 44 Ah

Starter	
Designation	M2T50381
Type	Displacement by means of electro-magnet CC (with reduction gear)
Rated power, V - kW	12 - 1.6

Alternator	
Designation	AOT25171/AOT25371
Type	IC
Rated power V - A	12 - 40

Glow plug	
Designation	Y-145T
Type	with sheath
Rated voltage V	10.5
Current drain A	9.7 ± 1.0 (30 seconds at rated voltage)

Glow plug relay	
Designation	G71SP
Rated voltage V	12 V DC
Continuous rated power	1 minute
Coil resistance	13

Control clock	
Designation	YM-1C
Input voltage range	9 V-15 V DC
Load	Electro-magnet (coil resistance: min. 1.7)

Electrical system

Electro-magnet with key switch-off key	
Designation	YMS-1
Type	Solenoid

Coil resistance	1.6 ± 10% at 20 °C
Stroke, mm	10 ± 0.5
Battery voltage, V	9 V-15 V DC

Pre-heating relay	
Designation	G7 1SP
Rated voltage, V	12 V DC
Continuous power	rpm
Coil resistance	13Ω
Inductance	24 mH (at 1 kHz)

Document Title: Engine	Function Group: 030	Information Type: Service Information	Date: 2018/4/13
Profile:			

Engine

Tightening torques	Nm
Socket head cap screw M10	78 ± 5
Socket head cap screw M8	24,3 ± 5
Rocker cover bolt	11,3 ± 1.5
Screw of rocker arm bracket	18 ± 3.4
Thermoswitch	22 ± 3.9
Crankshaft pulley nut	107 ± 9.75
Main bearing cap bolt	51.5 ± 2.5
Connecting rod cap nut	33 ± 1.5
Rear plate bolt	93 ± 10
Flywheel bolt	132 ± 5
Screw for cast iron oil sump	27.5 ± 3
Oil pan drain plug	44 ± 5
Pressure relief valve	49 ± 5
Oil filter	12 ± 1
Oil pressure switch	10 ± 2
Fuel injection pipe nut	29 ± 5
Fuel leak-off pipe nut	27 ± 2.5
Delivery valve holder	44 ± 5
Fuel injection nozzle holder	54 ± 5
Hold-down nut for injection nozzle	37 ± 2,5
Sliding sleeve shaft	35 ± 6
Special nut for torque spring set	20 ± 5
Glow plug	17.2 ± 2.5
Nut for glow plug cable	1.2 ± 0.2
Stop solenoid nut	44 ± 5
Starter B terminal	10.8 ± 1
Nut for rocker arm cover	5.8 ± 1
Injection nozzle holder	54 ± 5
Hold-down nut for injection nozzle	37 ± 2.5
Banjo bolt for injection pump	12 ± 5
Injection pump drain plug	5.8 ± 1
Screw for sheet steel oil sump	11.3 ± 1.5
Bolt for stop plate	10.8 ± 1

Document Title: Engine	Function Group: 030	Information Type: Service Information	Date: 2018/4/13
Profile:			

Engine

Type	EC13XR/XTV
Engine	L3E-64ESA
Working principle	Four stroke inline diesel engine, water cooled
Firing sequence (injection sequence)	1 - 3 - 2
Compression ratio	23 : 1
Type of combustion chamber	Swirl chamber
Weight, kg	125
Number of cylinders	3
Bore x stroke, mm	76 x 70
Displacement, cm ³	952
Compression pressure	32 bar
Max. permissible pressure deviation between cylinders	3 bar
Idle speed	1050 + 40 rpm
Full speed	2300 ± 20 rev./min
Installed net power (ISO 9249)	11.1 kW at 2150 rpm
Maximum torque	50 kW at 1800 rpm
Cooling	Centrifugal water pump with temperature control
Air filter	Dry

Valve system

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

Lubrication system

Type	Forced feed (by cycloidal pump)
Oil pressure	3.45 ± 0.5 bar
Oil filter	Paper element (full-flow)

Fuel lift pump

Type	Electrical (diaphragm)
Power at 220 °C and a terminal voltage of 12 V DC	300 cm ³ /min minimum or 400 cm ³ /min maximum

Engine

Injection pump	
Type	Series injection pump
Manufacturer	Bosch NC

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