# **CLEAN**Line



Originalbetriebsanleitung

**Original instructions** 

Notice originale

Manual original

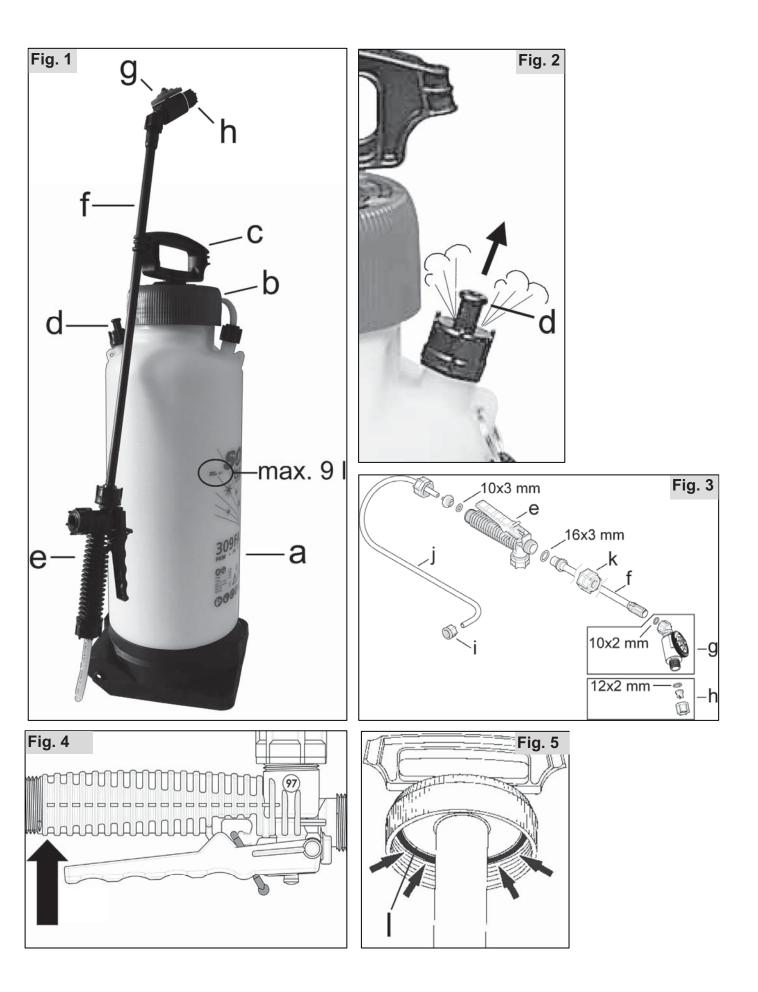
Istruzioni originali

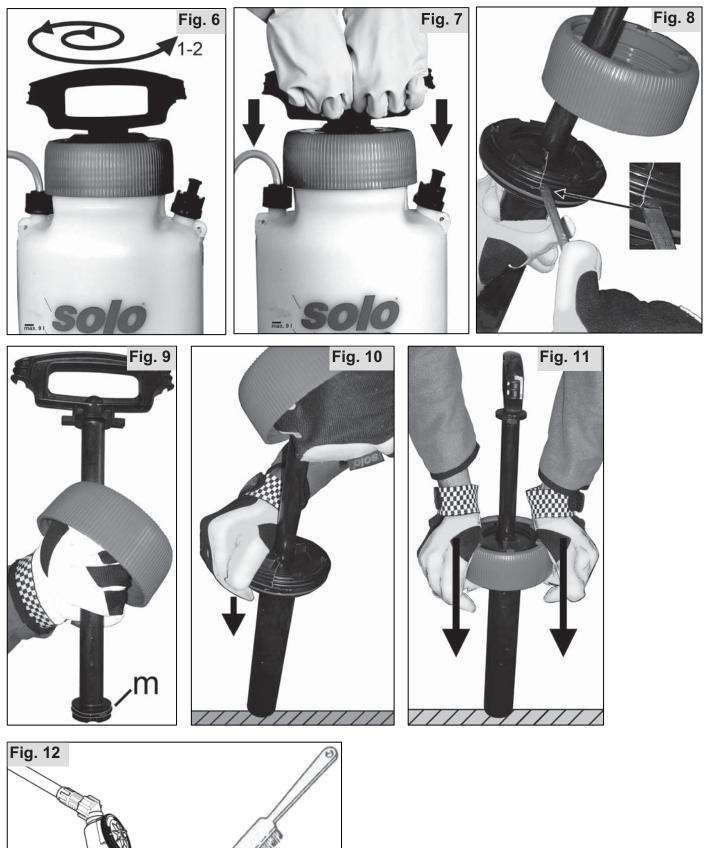
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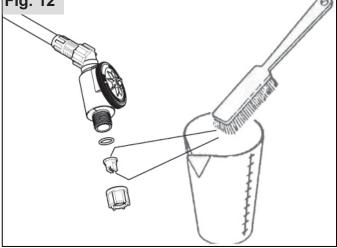
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# **Original instructions**

Read this instruction manual carefully before first operation and strictly observe the safety regulations!

Changes to the scope of supply in form, technology and equipment are reserved. No claims can be derived from any information and figures in these original instructions.

The original packaging and, at the end of its service life, the sprayer must be properly disposed of according to the local environmental regulations.

# **1** EC declaration of conformity

SOLO Kleinmotoren GmbH, Stuttgarter Straße 41, 71069 Sindelfingen, GERMANY declares that the **Foam sprayer**, types **309 FA** and **309 FB** – from date of manufacture 07/2016 and following – comply with the directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery. Sindelfingen, 01 July 2018

Wolfgang Emmerich, SOLO Kleinmotoren GmbH, Stuttgarter Straße 41, D-71069 Sindelfingen (managing director and documentation officer)

# 2 Wear parts

The following wear parts are not subject to the manufacturer's guarantee:

\* All rubber parts that come into contact with spraying liquid, \* nozzles, \* foam felt, \* seals,

# 3 Warranty

Please observe that specific warranty conditions are valid in some countries. In doubt, ask your vendor.

No guarantee can be granted for any damage caused by:

- Non-observation of the original instructions.
- Omission of necessary maintenance and cleaning work.
- Wear and tear from regular use
- Use of unapproved working tools.
- Use of force, improper treatment, abuse or accident.
- Manipulations by non-qualified persons or from improper repair attempts.
- Unauthorized modifications to the device.
- Use of unsuitable spare parts or non-genuine spare parts.
- Use of unapproved chemicals or dilutions.

• Damage caused by use in the rental business. Any warranty work must be performed by one of our authorised specialist vendors. Cleaning, care and standard adjustments are not accepted as warranty services.

# For Australia only: Supplementary warranty notes specifically for Australia

To make a claim, contact Clayton Engineering, 26 French Ave, Brendale, Q, 4500 on phone 1300 798 022 or email sales@claytonengineering.com.au. You will be asked to provide proof of purchase and then will be instructed on the procedure for repairing or replacement of the product under warranty. All costs incurred for repair or replace, and additional claims can be discussed at this stage.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

# 4 Symbols

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6	Read the original instructions thoroughly.
$\underline{\mathbb{N}}$	DANGER! Non-observation of the original instructions may potentially cause fatal injury.
R	Wear the prescribed protective clothing.
	Wear protective gloves.
	Wear facial protection (e.g. goggles).
	Wear breathing protection.
A	Minimum distance from other persons: 15 m [approx. 16 yards]

# 5 Safety provisions

# 5.1 Intended use / applications

The foam sprayer must only be used to apply the cleaning agents and disinfectants described below that are suitable for foaming.

Strictly observe the guide lines provided by the chemical manufacturer.

The foam sprayer of the <u>model series A</u> - type **309** *FA* (FKM seals) is suitable for application of acidic to pH-neutral spraying agents in the **pH range of 1 – 7** 

The foam sprayer of the <u>model series B</u> - type **309** *FB* (EPDM seals) is suitable for application of pH-neutral to alkaline spraying agents in the **pH range of 7 – 14** 

The pressure sprayer must **not** be used for all purposes not named above, such as

- spraying of paints
- distribution of
  - \* flammable liquids
  - \* sticky, residue-forming agents
  - \* surfactants
  - \* fluids with temperatures above 40 C [104 °F]
  - \* agents not intended for distribution by foam sprayers

and

- storage of fluids!

# 5.2 General safety notes

Read the original instructions before first use and keep it in a safe place.

Non-observation of information provided in these original instructions may potentially be fatal; the user is liable for any damage, direct or consequential, caused by this.

The original instructions must be kept on hand at the site of use of the sprayer at all times. It must be read by all who are charged with any work with and on the device (including for

work with and on the device (including for

- maintenance, care and repair).
- Have safe use shown and explained to you by a SOLO specialist vendor.
- Persons under the age of 18 must only work under supervision with this sprayer.
- Keep persons and animals away from the working area. Never spray in the direction of any persons, animals or objects that could be hurt or damaged.
- This sprayer must only be passed on to persons who are familiar with this model, its operation and the original instructions.
- If you work with this sprayer, you should be physically fit, rested and healthy.
- Do not use the sprayer while under the influence of alcohol, drugs or medication.

- Never make any changes to existing safety provisions and operating parts.
- Only use the sprayer when it is operationally safe to do so. Check the sprayer before every use according to chap. 6.2.
- Replace damaged parts without delay. Only use SOLO genuine spare parts.
- Only use factory approved accessories and attachments for this sprayer.
- Empty and clean the sprayer according to the information in chap. 9.2 for this. Prevent unauthorised access to the machine.

# 5.3 Safe handling of spraying liquids

- Follow suitable procedures and use collection containers to prevent any contamination of the environment, the public waterways and/or storm water systems from chemical agents and cleaners. This can happen while mixing, filling, using, emptying, cleaning or during transport.
- Always collect chemical spray liquids and cleaners (including residues) in suitable containers and return them to collection points specified by the municipal administration.
- In case of skin or eye contact, rinse or flush the affected body parts with plenty of clean water. Seek medical advice without delay.
- Contaminated clothing should be changed at once.
- Never eat or drink while handling spray liquids
- If you feel nauseous during work, or if you are excessively fatigued, stop working at once. If the condition persists, seek medical advice without delay.
- Never permit children or persons work with or handle spraying liquids if they are not familiar with these substances.
- Never fill different spray solutions into the spray tank.
- When changing the spray solution, clean the spray tank and all parts that come in contact with the spray solution. Operate the sprayer with clear water first before filling the spray tank with the different spray solution.
- At the end of work, empty and clean the sprayer according to chap. 9.2, clean your face and hands thoroughly, take off work clothing and wash it regularly.

# 5.4 When transporting the sprayer

- The device must be securely strapped down when transported on vehicles.
- Prevent leakages of spraying agents. The liquid tank of the sprayer and all liquid carrying hoses must be inspected regularly for leaks.

### 5.5 Work clothing /personal protection equipment (PPE)

Suitable and approved protective clothing that protects all body parts from contact with the spray solution must be worn.

Wear firm shoes with good gripping soles.



 Wear protective gloves with a slip-proof palm.

• Use facial protection (e.g. protective aogales).

• Wear a respirator when using dangerous spraying agents.

# 5.6 Before and during work

- · Before starting work, always check the entire device for operational safety according to chap. 6.2.
- The sprayer must only be operated by one person. There must be no other person within a radius of 15m [approx. 16 yards].

# 5.7 Maintenance, repair and storage

Only perform maintenance and repair work yourself that is described in these original instructions. All other work must be carried out by an authorised specialist workshop.

- Do not service, repair or store the sprayer near open fire.
- Before doing any maintenance work or repairs and before opening the spraying agent tank, depressurise the device by pushing on the pressure relief valve (d) (Fig. 2).

The device always must be vertical when the pressure relief valve is actuated.

Attention: Keep the device away from your face!

• The pressure hose, hand valve, spray wand and nozzle assembly must only be unscrewed when the sprayer is depressurised.

# 6 Work preparation

Fig. 1:

- Spraying agent tank a
- **b** Flange housing
- c Pump handle
- d Pressure relief valve
- Shut-off valve е
- f Spray tube
- Foam adjustment unit g
- Nozzle attachment h

# 6.1 Assembly

# Fig. 2:

- Firmly screw the foam adjustment unit (**q**) with the nozzle attachment (h) hand-tight onto the spray tube. Do not use any tools!
- Fasten the threaded collar (k) on straight and firmly screw the spray tube (f) with O-ring (16x3 mm) hand-tight onto the shut-off valve (e). Do not use any tools!

# Fig. 1:

When your work is completed, the spray tube should be fitted into the holding clamp at the pump handle (c).

Please put the foam adjustment unit (g) completely up.

### 6.2 Checking for operationally safe condition

Subject the foam sprayer to a visual inspection before every use. There must be no cracks evident at the tank (a), the pump handle (c), the foam adjustment unit (g) and the nozzle attachment (h).

The following inspections must be performed at first commissioning and at recommissioning after extended standstill. During use of the foam sprayer, proper function generally must be verified in operation.

- Tightness of all sprayer parts at maximum admissible pressure with the hand valve opened and closed
- Function of all working parts (hand valve, pump, pressure relief valve)

For this, build up pressure across the pump. The pressure must escape with a clearly audible sound when you actuate the pressure relief valve (Fig. 2). The device always must be vertical when the pressure relief valve is actuated. Attention: Keep it away from your face!

Check the function of the shut-off valve during application. When releasing the shut-off valve, spraying must stop.

In case of irregularities, damage, leaks or limited function, do not use the sprayer but have it checked in a specialist workshop without delay.

# 7 Preparing the spray liquid and filling the spray tank

Prepare the spray liquid according to the instructions of the chemical manufacturer. Always prepare the spray liquid outdoors, never in living quarters, stables or storage rooms for food and animal feed.

Before opening the spraying agent tank, depressurise the device by pulling on the pressure relief valve (Fig. 2). Before pulling on the pressure

relief valve (**d**), the device must always be in an upright position.

Attention: Keep the device away from your face!

To fill the tank with spraying agent, the pump must be unscrewed. Push the pump handle (c) down and turn it to the left (counterclockwise) until the handle clicks into position.

Unscrew the pump by turning it counterclockwise. Do not use any tools!

Fill the tank no further than to the mark "max. 9I" on the side of the spray tank.

Overfilling the tank or spills can contaminate public waterways, rain- and storm water channel and must be avoided.

Wipe off spilled spray liquid without delay.

After filling, insert the pump again and refasten firmly by turning the pump handle (**c**) clockwise to prevent the spraying agent from escaping. Refasten firmly until the pump handle clicks into position.

# 8 Using the foam sprayer

# 8.1 Spraying

To pump, loosen the pump handle (**c**) by turning out of the stop position. Pump the unit until the operating pressure is reached in the spraying agent tank. Excessive pressure escapes automatically through the pressure relief valve (**d**).

Hold the spray wand with the hand valve. Fig. 4:

To spray, depress the hand lever on the valve. Release the hand valve lever to stop spraying. The foam sprayer can also be carried by the pump handle (**c**), if the pump handle is pressed down completely, and it is turned to the right and clicked into position.

# 8.2 Setting the foam consistency

Firm (dry) foam will adhere better and therefore can act for a longer time, whereas liquid foam has a higher concentration of spraying agent on the area to be treated.

The foam adjustment unit (**g**) can be used to preset consistency of the foam to be applied to match the application.

- Turn the setting wheel clockwise (in the direction "dry") for firmer foam.
- Turn the setting wheel counter-clockwise (in the direction "wet") for more liquid foam.

The adjustment wheel area available for sensibly usable levels of foam consistency differs by spraying agent, spraying pressure and installed spray nozzle.

# 8.3 Disposal of residual spray volume

Residual spray volumes of less than 200 ml [6.8 oz] are no longer pumped effectively. If you do not want to fill in any more spraying agent and want to end spraying, collect and dispose of the remaining amount according to the applicable laws and provisions. Observe the information from the spraying agent manufacturer.

At the end of the work, empty and clean the sprayer according to chap. 9.2, wash face and hands thoroughly and take off the work clothing. Work clothing requires regular washing.

# 9 Maintenance, cleaning and storage

# 9.1 Greasing the sealing rings

# Greasing the cap gasket

Fig. 5:

For proper sealing of the spraying agent tank, the cap gasket (I) must be well greased with silicone grease.

# Greasing the pump piston sealing ring

If the pump is hard to operate, the sealing ring of the pump piston (Fig. 9, pos. m) should be greased with silicone grease or replaced if necessary.

# Disassembly of the pump and greasing the sealing ring:

Fig. 6: Ensure the sprayer is empty and not pressurised. Place sprayer securely on level ground. If the pump is completely screwed onto the tank, loosen the pump with 1–2 turns.

Fig. 7: Firmly hold the pump handle with both hands and push downwards until the pump releases from the flange housing with an audible click. Unscrew the blue flange housing from the sprayer and remove the pump from the tank.

Fig. 8: Use a screwdriver to lever both black flange semi-circles from the pump cylinder. The pump piston can now be pulled from the pump cylinder.

Fig. 9: The sealing ring (j) can now be re-greased with silicone grease or replaced if damaged.

# Assembly:

Fig. 10: Place the blue flange housing correctly on the pump piston.

Push the pump piston into the pump cylinder. Push both black flange semi-circles onto the pump cylinder until they lock with an audible click.

Fig. 11: Place the pump cylinder securely on level ground. Line up the blue flange housing in the exact position and firmly push the blue flange housing down with both hands onto the pump cylinder until the parts lock together with an audible click.

9.2 Draining the spraying agent tank and cleaning the spraying agent carrying parts

The device must be depressurised by actuating the pressure-relief valve (**d**) before opening the spraying agent tank and before disassembly of the nozzle attachment (Fig. 2)!

Empty the spraying agent tank after use every day. Collect and dispose of the residual quantity of the spraying agent according to the applicable law and provisions. Observe the information from the spraying medium manufacturer. Flush the spraying agent tank and all spraying-agent-conducting parts thoroughly with clean water. Operate the foam sprayer once more with clear water.

Let the spraying agent tank dry again in the open condition after cleaning.

Fig. 12: Clean the spray nozzle (**h**) as follows after approx. 50 uses.

- First operate the foam sprayer with ½ litre of clear water to spray out any spraying agent residues.
- Unscrew the nozzle attachment (h) from the foam adjustment unit (g).
- Rinse components with clear water.
- Only clean the spray nozzle with clear water and a soft brush.
  Do not blow out the nozzle with your mouth.

Do not clean the nozzle with hard objects!

• Install all components again properly.

# **10 Specification**

Model ("Typ")		309 FA	309 FB
Spraying agent tank: Total volume Max. fill volume		approx. 14.2 l [3.75 gal] approx. 9.0 l [2.38 gal]	
Residual volume not properly discharged by the device		< 200 ml [6.8 oz]	
Maximum permissible operating pressure		3.0 bar [43 psi]	
Permissible operating temperature		0–40 °C [32–104 °F]	
Tank material		Polyethylene	
Sealing material suitable for spraying agents in the pH range		FKM 1 - 7	EPDM 7 - 14
Standard spray nozzle		Flat jet nozzle 06 - F110	
Weight (ready for operation):	Tank empty tank filled to max.	2.9 kg [6.4 lbs] 14.3 kg [31.5 lbs]	
Dimensions :	Height Width Depth	670 mm [26.4"] 220 mm [8.7"] 220 mm [8.7"]	

We will disclose the materials used for the sprayer on request.

Information about material ingredients (VO (EC) No.1907/2006 "REACh") can be found on our homepage under: https://de.solo.global/de/content/12-service

# 9.3 Down periods and storage

Empty and clean the sprayer according to chap. 9.2.

Keep the sprayer protected from sunlight in a dry, frost-free and secure location at a temperature of max.  $35 \degree C [95 \degree F]$ .

No open fireplaces or similar must be nearby. Prevent unauthorised use – especially by children.



# D-71069 Sindelfingen

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