Please read and comply with these original instructions prior to the initial operation of your appliance and store them for later use or subsequent owners.

- Before first start-up it is definitely necessary to read the operating instructions and safety indications Nr. 5.951-949
- In case of transport damage inform vendor immediately
- Check the contents of the pack before unpacking.

# **Contents**

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# **Environmental protection**



The packaging material can be recycled. Please do not throw the packaging material into household waste; please send it for recycling.



Old appliances contain valuable materials that can be recycled; these should be sent for recycling. Batteries, oil, and similar substances must not enter the environment. Please dispose of your old appliances using appropriate collection systems.

Please do not release engine oil, fuel oil, diesel and petrol into the environment Protect the ground and dispose of used oil in an environmentally-clean manner.

Notes about the ingredients (REACH)

You will find current information about the ingredients at:

www.kaercher.com/REACH

# Overview

# **Device elements**

#### see cover page

- 1 Connection for water supply with filter
- 2 Steering roller with fixed position brake
- 3 High pressure connection
- 4 High pressure hose
- 5 Trigger gun with safety catch
- 6 Spray lance
- 7 High pressure nozzle
- 8 High-pressure pump
- 9 Continuous heater
- 10 Fuel tank
- 11 Fuel pump
- 12 Burner blower
- 13 Oil tank at the pump
- 14 Pressure switch
- 15 Thermostat valve
- 16 Safety valve
- 17 Water shortage safeguard

- 18 Fuel tank
- 19 Device for manual start
- 20 Nameplate
- 21 Cover of electrical cabinet
- 22 Temperature controller
- 23 Fuse
- 24 Softener container \*
- 25 Indicator lamp Softener fluid empty \*
- 26 Dosage valve for detergent
- 27 Detergent container \*
- 28 Operating hour counter \*
- 29 Storage compartment for nozzles
- 30 Handle
- \* Additional accessory

# Proper use

#### Note

Applicable only for Germany: The appliance is meant only for mobile (non-stationary) operations.

This high pressure cleaner is used especially at locations where there is no electrical connection and it is necessary to work with hot water.

Cleaning of: Machines, Vehicles, Structures, Tools, Facades, Terraces, Gardening tools, etc.

- Use only the high pressure jet without detergent for cleaning facades, terraces, garden equipment, etc.
- For stubborn dirt, we recommend the use of the dirt blaster as a special accessory.

# **△** Danger

Risk of injury! Follow the respective safety regulations when operating at gas stations or other dangerous areas.

Please do not let mineral oil contaminated waste water reach soil, water or the sewage system. Perform engine cleaning and bottom cleaning therefore only on specified places with an oil trap.

# Safety instructions

## **△** Danger

- Do not use high pressure cleaners when there has been an oil spill; move the appliance to another spot and avoid any sort of spark formation.
- Do not store, spill or use fuel in the vicinity of open flames or appliances such as ovens, boilers, water heaters, etc. that have an ignition flame or can generate sparks.
- Keep even mildly inflammable objects and materials away from the silencer (at least 2 m).
- Do not start the engine without the silencer; check, clean and replace, if required, the silencer at regular intervals.
- Do not use the engine in forest, bushes or grassy areas without fitting a spark receiver at the exhaust.
- Except for setting jobs, do not run the engine when the air filter is removed or there is no cover over the suction support.
- Do not make any adjustments to the regulator springs, regulator bars or other parts that can bring forth an increase in the engine speed.
- Risk of burns! Do not touch hot silencers, cylinders or radiator ribs.
- Do not put hands or feet close to moving or rotating parts.
- Risk of poisoning! The appliance should not be operated in closed rooms.
- Never leave the machine unattended so long as it is running.

#### General notes on safety

- Please follow the national rules and regulations for fuel spray jets of the respective country.
- Please follow the national rules and regulations for accident prevention of the respective country. Fuel spray jets must be tested regularly and the results of these tests must be documented in writing.

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 The heating appliance of the machine is an ignition plant. All national laws and regulations about heating systems must also be followed.

# High pressure hose

## **⚠** Danger

Risk of injury!

- Only use original high-pressure hoses.
- The high-pressure hose and the injection system must be suitable for the maximum operating pressure given in the Technical Data.
- Avoid contact with chemicals.
- Check the high-pressure hose daily.
   Do not use hoses with kinks.
   Stop using the high-pressure hose if the external wire layer is visible.
- Do not use the high-pressure hose anymore if the winding is damaged.
- Lay the high-pressure hoses in such a way that no vehicle can drive over it.
- Do not use high-pressure hoses that have been driven over, kinked, pressed or bent even if there is no externally visible damage.
- Store the high-pressure hoses in such a way that they are not subject to any mechanical load.

# Symbols in the operating instructions

### **△** Danger

Immediate danger that can cause severe injury or even death.

# **△** Warning

Possible hazardous situation that could lead to severe injury or even death.

# Caution

Possible hazardous situation that could lead to mild injury to persons or damage to property.

# Symbols on the machine



High-pressure jets can be dangerous if improperly used. The jet may not be directed at per-

sons, animals, live electrical equipment or at the appliance itself.

According to the applicable regulations, the appliance must never be used on the drinking water supply without a system separator. Use a suitable system separator manufactured by KÄRCHER; or, as an alternative, a system separator as per EN 12729 Type BA. Water flowing through a system separator is considered non-drinkable.

#### Caution

Always connect the system separator to the water supply, never directly to the appliance!



Risk of poisoning! Do not breathe in the exhaust fumes.



Risk of burns! Beware of hot components.

# Safety Devices

Safety devices serve for the protection of the user and must not be put out of operation or bypassed with respect to their function.

## Water shortage safeguard

The safety mechanism against lack of water prevents the heater from over-heating when there is no water. The burner operates only when there is adequate water supply.

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# **Overflow valve**

- If the hand spray gun is closed, the overflow valve opens and the high pressure pump diverts the water back to the pump suction side. Thus the permissible working pressure is not exceeded.
- The overflow valve is set by the manufacturer and sealed. Setting only by customer service.

## Safety valve

- The safety valve opens when the overflow valve is defective.
- The safety valve is set by the manufacturer and sealed. Setting only by customer service.

# Thermo-valve at the pump

The thermo-valve opens when the permissible water temperature is exceeded and lets out the hot water into the open.

#### Pressure switch

The pressure switch switches off the burner when the working pressure falls below the minimum value and switches it on again when it is exceeded.

# Start up

# △ Danger

Risk of injury! Device, tubes, high pressure hose and connections must be in faultless condition. Otherwise, the appliance must not be used.

# Check oil level of the high pressure pump

#### ⚠ Warning

In case of lacteous oil inform Kärcher customer service immediately

- → Before using for the first time, cut off the tip of the lid of the oil tank on the water pump.
- → Check oil level in the oil tank.

Do not operate the appliance if the oil level has fallen below "MIN".

→ Add oil if required (see technical specifications).

### **Motor**

# Follow the instructions given in the section "Safety Notes"!

- → Read the operating instructions of the engine manufacturer before start-up and follow the safety instructions carefully.
- → Check oil level of the engine.

Do not operate the appliance if the oil level has fallen below "MIN".

- → If required, top up oil carefully.
- → Fill fuel tank with diesel.

# Refill fuel

### **△** Warning

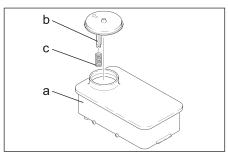
Risk of damage to the fuel pump on account of dry running. Fill up the fuel tank up to this mark even for cold water operations.

#### **△** Danger

Risk of explosion! Only refill diesel oil or light fuel oil. Unsuitable fuels, e.g. petrol, are not to be used.

- → Refill fuel.
- → Close tank lock.
- → Wipe off spilled fuel.

# Top up liquid softener (additional attachment)



- → Remove spring (c) from the lid support (b) of the softener tank (a).
- → Fill the tank with Kaercher softener liquid RM 110 (Order no. 2.780-001).

The liquid softener prevents the calcification of the heating spiral while operating with calciferous tap water It is dosed into the supply drop by drop

# Adjust dosing of liquid softener

The indicator lamp "Softener fluid empty" blinks when there is no softener.

- → Determining the hardness of tap water:
- through the public water supply works,
- using a hardness tester (order no. 6.768-004)
- → Open the electrical box.
- → Set the rotary potentiometer according to the water hardness. You can refer to the correct setting in the table.

#### Example:

For a water hardness of 15 °dH, set 7 on the value scale of the speed potentiometer.

Water hardness (°dH)	Scale on the speed potentiometer
5	10
10	8
15	7
20	6,5
25	6
30	5,5

### Install hand spray gun

- → Mount the nozzle on the spray pipe (markings on the adjustment ring at the top).
- → Connect ray tube to hand spray gun
- → Connect the high pressure hose to the high pressure connection point of the machine.

# Installing spare high pressure hose

## Figures A-C

- → Lever out the safety clip of the handspray gun using a screw-driver (Picture A).
- → Place the hand-spray gun upside down and insert the end of the high pressure hose till the end. Ensure that the lose disc falls right below on the hose end (Picture B).
- → Press the safety clip back into the handspray gun. The hose can be pulled out max. 1 mm if it has been installed correctly. Otherwise, it means the disc has been installed wrongly (picture C).

### Water connection

For connection values refer to technical specifications

#### **△** Warning

Observe regulations of water supplier. According to the applicable regulations, the appliance must never be used on the drinking water supply without a system separator. Use a suitable system separator manufactured by KÄRCHER; or, as an alternative, a system separator as per EN 12729 Type BA. Water flowing through a system separator is considered non-drinkable.

#### Caution

Always connect the system separator to the water supply, never directly to the appliance!

- → Connect the supply hose to the water connection point of the machine and at the water supply point (for e.g. a tap).
- → Open the water supply.

#### Note

The supply hose is not included.

# Suck in water from vessel

- When fitted with the appropriate accessories, this high-pressure cleaner can draw in surface water, e.g. from water butts or ponds.
- Suction height max. 1m.

### **△** Danger

Never suck in water from a drinking water container.

# **△** Danger

Never suck in liquids which contain solvents like lacquer thinner, petrol, oil or unfiltered water. The sealings within the device are not solvent resistant. The spray mist of solvents is highly inflammable, explosive and poisonous.

- → Connect suction hose (minimum diameter 3/4") with filter (accessory) to the water connection point.
- → Set dosing value for detergent to "0".

# Operation

## **△** Danger

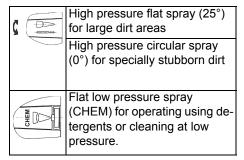
- Place the appliance on firm surface.
- The high pressure cleaner must not be used by children. (Risk of accident on account of improper use of the appliance).
- The high pressure spray generates high levels of noise when the appliance is in use. Risk of hearing impairment. Always use proper ear-protection aids while working with the appliance.
- The water jet coming out of the high pressure nozzle causes the gun to recoil. Further, an angular spray pipe can cause additional torque. Hence hold the spray pipe and gun firmly.
- Never direct the water jet on to persons, animals, the appliance itself or electrical components.
- Vehicle tyres/ tyre valves may be cleaned only with a minimum spray distance of 30 cm. Otherwise, the high pressure spray can cause damage to the vehicle tyre/ tyre valve. The discolouring of the tyre is the fhe first sign of damage. Damaged vehicle tyres are a source of danger.
- Do not spray materials contains asbestos or other health-hazardous substances.
- The operator must wear proper safety gear to be protected against the water sprays.
- Pay attention to ensure that all screws of all connecting hoses are tightened properly.
- The lever of the hand spray gun must not be locked during the operation.

# Cleaning

→ Set pressure/temperature and detergent concentration according to the surface to be cleaned.

# Triple nozzle

- → Close the hand spray gun.
- → Turn the casing of the nozzle till the desired symbol matches the marking.



Select round or flat spray using touch-less switching:

- → Close the hand spray gun.
- → Turn the spray-pipe that is inclined about 45° downward to the left or the right.

#### Note

To prevent damage due to too much pressure, always position high pressure ray first from a greater distance towards object to be cleaned.

## Turning on the Appliance

- → Open the water supply.
- → Set the temperature regulator to operations with cold/ hot water.
- → Start the engine according to the operating instructions of the engine manufacturer.
- → Press the lever on the hand spray gun.

# Operating with cold water

→ Set thermostat to "Burner off" position.

# Operating with hot water

# **⚠** Danger

Scalding danger!

→ Set thermostat to desired working temperature. The burner is switched on.

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# Operation with detergent

#### ⚠ Warning

Unsuitable detergents can cause damage to the appliance and to the object to be cleaned. Use only those detergents that have been approved by Kärcher. Observe the dosage and other instructions provided with these detergents. For considerate treatment of the environment use detergent economically.

Follow the safety instructions for using detergents.

- Use only those detergents approved by the manufacturer of the appliance.
- Kärcher detergents ensure smooth functioning. Please consult us or ask for our catalogue or our detergent information sheets.
- Suspend end of suction hose in a container filled with detergent.
- → Set nozzle to "CHEM".
- → Set dosing value for detergent to the desired concentration.

#### Recommended cleaning method

Loosen the dirt:

Spray detergent economically and let it work for 1...5 minutes but do not let it dry up.

 Remove the dirt:
 Spray off loosened dirt with the highpressure jet.

# After operation with detergent

- → Set dosing value for detergent to "0".
- → Open the hand spray gun and rinse the appliance for at least 1 minute.

# Interrupting operation

→ Release the lever on the trigger gun.

# Note

When the lever of the hand spray gun is released, the engine continues to run at zero speed. The water thus circulates within the pump and gets heated. When the cylinder head at the pump has reached the maximum permissible tempertaure (80 °C), the therm-valve on the pump opens and lets out the hot water into the open.

Cooling can be hastened while using compressed water from the water supply pipes:

→ Pull the lever of the hand spray gun for 2 - 3 minutes so that the circulating water cools down the cylinder head.

# After each operation

# ⚠ Danger

Danger of scalding by hot water. After operation with hot water, the device must be operated with openend handgun with cold water for at least two minutes.

# After operation with detergent

- → Set dosing value for detergent to "0".
- → Open the hand spray gun and rinse the appliance for at least 1 minute.

# Turn off the appliance

After operating the water using saline water (sea water), open the hand spray gun and rinse the appliance for at least 2 - 3 minutes using tap water.

# ⚠ Warning

Never stop the motor under full load when the hand-spray gun is opened.

- → Set thermostat to "Burner off" position.
- → Rinse the device thoroughly for at least 30 seconds.
- → Release the lever on the trigger gun. Motor regulates to reach dry run speed.
- → Set the key switch at the motor to "OFF".
- → Close fuel cock.
- → Shut off water supply.
- → Activate hand spray gun until device is pressure-less.
- Secure the hand spray gun using the safety catch so that it doesn't open accidentally.
- → Remove the water inlet hose from the appliance.

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# **Frost protection**

# ⚠ Warning

Risk of damage! Freezing water in the appliance can destroy parts of the appliance.

 Store the appliance in a heated room during winter or empty it. During longer breaks in operation, it is advisable to pump in anti-frost agents into the appliance.

# **Transport**

#### Caution

Risk of injury and damage! Observe the weight of the appliance when you transport it

- → Release parking brake.
- → Push the appliance.
- → When transporting in vehicles, secure the appliance according to the guidelines from slipping and tipping over.

# **Storage**

#### Caution

Risk of injury and damage! Note the weight of the appliance in case of storage.

This appliance must only be stored in interior rooms.

# **Maintenance and care**

You can sign with your dealer a contract for regular safety inspection or even sign a maintenance contract. Please take advice on this matter.

### **△** Danger

Risk of injury if the machine is left running in an unattended state. Shut off the fuel supply before doing any work on the appliance.

Risk of burns! Do not touch hot silencers, cylinders or radiator ribs.

### **Maintenance schedule**

Time	Assembly affected	Activity
weekly	High-pressure pump	Check oil level Please contact Customer Service immediately if the oil is milky (water in oil).
	Sieve in water inlet	Check sieve, clean if required
half-yearly	Continuous heater	Dismantle burner inlay; clean burner and ignition electrodes; check distance between electrodes; adjust if required or replace ignition electrodes.
Half-yearly or when required	Device	Empty and clean the fuel tank. Clean the filter in front of the fuel pump and fuel nozzle. Desulphurise the heating coil and remove soot from it. Change the oil in the high pressure pump.

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# **High-pressure pump**

Oil change:

- → Ready a catch bin for appr. 1 Liter oil.
- → Turn out the oil drain screw.
- → Drain the oil in a collection basin.

Dispose of old oil ecologically or turn it in at a collection point.

- → Turn out the oil drain screw.
- → Slowly fill in new oil until the "MAX" marking on the oil container.

#### Note

Air pockets must be able to leak out.

For oil type refer to technical specifications

#### Motor

Carry out maintenance tasks to the engine according to the specifications provided in the operating instructions of the engine manufacturer.

# **Decalcify appliance**

The flow resistance is higher if there are deposits in the pipes; this increases the load on the motor.

#### **⚠** Danger

Risk of explosion due to combustible gases! Smoking strictly prohibited during decalcification. Ensure proper ventilation.

# **⚠** Danger

Risk of burns injury on account of acid! Wear protective glasses and protective gloves.

## Performance

According to statutory requirements, only tested and approv approved boiler decrusting agents may be used.

- RM 100 (Order No. 6.287-008) dissolves chalk and simple compounds of chalk and detergents residues.
- RM 101 (Order No. 6.287-013) dissolves the deposits that cannot be dissolved using RM 100.
- → Fill a 20 litre container with 15 l water.
- → Add one litre of boiler decrusting agent.

- → Connect the water hose directly to the pump and hang in the other free end into the container.
- → Insert the connected spray pipe without nozzle into the container.
- → Start the engine according to the operating instructions of the engine manufacturer.
- → Open the hand-spray gun and do not close it during the decalcification process.
- → Set the temperature regulator to working temperature of 40 °C.
- → Let the appliance run till the working temperature is reached.
- → Switch off the appliance and let it stand for 20 minutes. The hand-spray gun must remain opened.
- → Then pump out the machine until empty.

#### Note

As an anti-corrosion measure and for neutralising the acid residue, we recommend that you finally pump an alkaline solution through the machine (for e.g. RM 81) via the detergent tank.

# Troubleshooting

# **△** Danger

Risk of injury if the machine is left running in an unattended state. Shut off the fuel supply before doing any work on the appliance.

Risk of burns! Do not touch hot silencers, cylinders or radiator ribs.

### Fuel indicator lamp glows

- Fuel tank empty
- → Refill.

# Indicator lamp for 'softener liquid empty' is blinking

- Liquid softener tank is empty, due to technical reasons a remainder stays in the tank.
- → Refill.
- Electrodes in the tank are dirty
- → Clean the electrodes.

# Motor does not run

Follow operating instructions of the engine manufacturer!

- Fuel tank empty.
- → Refill.
- No oil in the motor.
- → Check oil level of the engine. Replenish oil.

# Device is not building up pressure

- Nozzle is set to "CHEM"
- → Set nozzle to "High pressure".
- Nozzle is blocked/ washed out
- → Clean/ replace nozzle.
- Sieve in the water connection is dirty
- → Clean sieve.
- Sieb in front of the water scarcity safeguard is dirty.
- → Clean sieve.
- Amount of water supply is too low.
- → Check water supply level (refer to technical data).
- Detergent tank is empty.
- → Top up detergent orset dosing value for detergent to "0".
- Detergent dosing valve is leaky.
- → Check dosing valve.
- Safety valve is displaced.
- → Adjust safety valve (Customer Service).
- Safety valve is leaky.
- → Replace the safety valve and/or the washer (Customer Service).
- Overflow valve is defective
- → Replace overflow valve (Customer Service).
- Air within the system

#### Vent pump:

- → Set dosing value for detergent to "0".
- → Open the water supply.
- → Start the engine according to the operating instructions of the engine manufacturer.
- → To dearate the appliance, unscrew the nozzle and allow the appliance to run until the water exits in a bubble-free state.
- → Switch off the appliance and fit the nozzle again.

# Water jet is not uniform

- Nozzle is blocked.
- → Clean the nozzle.
- Safety valve is displaced.
- → Adjust safety valve (Customer Service).

# Device is not sucking in detergent

- Nozzle is set to "High pressure"
- → Set nozzle to "CHEM".
- Detergent suction hose with filter is leaky or blocked
- → Check/ clean detergent suction hose with filter.

# Oil in the high pressure pump is milky

- Washer is defective.
- Inform Customer Service.

# **Burner does not start**

- Temperature limiter has got triggered again.
- Get the device checked by Customer Service.
- Fuel tank empty
- → Refill.
- Water shortage
- → Check water supply, check connections, clean water shortage safeguard.
- Fuel pump is defective
- → Replace fuel pump (Customer Service).
- Fuel filter dirty
- → Change fuel filter.
- No ignition spark
- → If device is in use and no ignition spark can be seen through the viewing glas, have device checked by customer service.
- Uneven spraying of fuel at the burner nozzle
- → Clean fuel filter.

# Water scarcity safeguard does not switch on - no flame

- Water inlet is closed.
- → Open the water supply.
- Amount of water supply is too low.
- → Increase water flow quantity.
- Sieve blocked in the water shortage safe guard.
- → Clean sieve in the water shortage safe guard.
- Valves in the high pressure pump are leaky or dirty.
- → Inform Customer Service.

If malfunction can not be fixed, the device must be checked by customer service.

# Warranty

- The warranty terms published by our competent sales company are applicable in each country. We will repair potential failures of the appliance within the warranty period free of charge, provided that such failure is caused by faulty material or defects in fabrication.
- The warranty comes only into effect if your vender fills out the supplied reply card completely at purchase, stamps and signs and you send it to the local distribution company of your country.
- In the event of a warranty claim please contact your dealer or the nearest authorized Customer Service centre. Please submit the appliance, including all accessories, and the proof of purchase.

# **Accessories and Spare Parts**

- Only use accessories and spare parts which have been approved by the manufacturer. The exclusive use of original accessories and original spare parts ensures that the appliance can be operated safely and trouble free.
- At the end of the operating instructions you will find a selected list of spare parts that are often required.
- For additional information about spare parts, please go to the Service section at www.kaercher.com.

# **EC Declaration of Conformity**

We hereby declare that the machine described below complies with the relevant basic safety and health requirements of the EU Directives, both in its basic design and construction as well as in the version put into circulation by us. This declaration shall cease to be valid if the machine is modified without our prior approval.

Product: High-pressure cleaner

Type: 1.210-xxx

**Relevant EU Directives** 

2006/42/EC (+2009/127/EC) 2000/14/EC

2004/108/EC

Applied harmonized standards

EN 55012: 2007 + A1: 2009

EN 60335-1

EN 60335-2-79

Applied conformity evaluation method

2000/14/EC: Appendix V

Sound power level dB(A)

Measured: 102 Guaranteed: 104

5.957-554

The undersigned act on behalf and under the power of attorney of the company management.

H. Jenner

S. Reiser CEO Head of Approbation

Authorised Documentation Representative S. Reiser

Alfred Kärcher GmbH Co. KG Alfred-Kärcher-Str. 28 - 40 71364 Winnenden (Germany)

Phone: +49 7195 14-0 Fax: +49 7195 14-2212

Winnenden, 2011/07/01

# **Technical specifications**

Lombardini diesel engine
Maximum torque at 3600 rpm         kW/HP         3,5/4,8           Operating speed         1/min         3300           Water connection         "C         30           Min. feed temperature         °C         30           Min. feed volume         I/h (I/min)         750 (12,5)           Max. feed pressure         MPa (bar)         0,6 (6)           Inlet hose length         m         7,5           Inlet hose diameter (min.)         Inch         3/4           Max. suction height from open container (20 °C)         m         1           Performance data           Water flow rate         I/h (I/min)         600 (10)           Operating pressure of water (using standard nozzle)         MPa (bar)         14,5 (145)           Nozzle size         038           Max. operating over-pressure         MPa (bar)         20 (200)           Max. operating temperature of hot water         °C         98           Detergent suck in         I/h (I/min)         0-45 (0-0,75)           Burner performance         kW         43           Maximum consumption of heating oil         kg/h         4,1           Max. recoil force of hand spray gun         N         28           Values determined as
Operating speed         1/min         3300           Water connection         Max. feed temperature         °C         30           Min. feed volume         I/h (I/min)         750 (12,5)           Max. feed pressure         MPa (bar)         0,6 (6)           Inlet hose length         m         7,5           Inlet hose diameter (min.)         Inch         3/4           Max. suction height from open container (20 °C)         m         1           Performance data         Water flow rate         I/h (I/min)         600 (10)           Operating pressure of water (using standard nozzle)         MPa (bar)         14,5 (145)           Nozzle size         038           Max. operating over-pressure         MPa (bar)         20 (200)           Max. operating temperature of hot water         °C         98           Detergent suck in         I/h (I/min)         0-45 (0-0,75)           Burner performance         kW         43           Maximum consumption of heating oil         kg/h         4,1           Max. recoil force of hand spray gun         N         28           Values determined as per EN 60355-2-79         Hand-arm vibration value
Water connection         Max. feed temperature         °C         30           Min. feed volume         I/h (I/min)         750 (12,5)           Max. feed pressure         MPa (bar)         0,6 (6)           Inlet hose length         m         7,5           Inlet hose diameter (min.)         Inch         3/4           Max. suction height from open container (20 °C)         m         1           Performance data           Water flow rate         I/h (I/min)         600 (10)           Operating pressure of water (using standard nozzle)         MPa (bar)         14,5 (145)           Nozzle size         038           Max. operating over-pressure         MPa (bar)         20 (200)           Max. operating temperature of hot water         °C         98           Detergent suck in         I/h (I/min)         0-45 (0-0,75)           Burner performance         kW         43           Maximum consumption of heating oil         kg/h         4,1           Max. recoil force of hand spray gun         N         28           Values determined as per EN 60355-2-79         Hand-arm vibration value         m/s²         <2,5
Max. feed temperature    C   30
Min. feed volume  Min. feed volume  Min. feed volume  Min. feed pressure  MPa (bar)  O,6 (6)  Inlet hose length  m  7,5  Inlet hose diameter (min.)  Max. suction height from open container (20 °C)  Max. suction height from open container (20 °C)  Performance data  Water flow rate  Water flow rate  Water flow rate  Water size  MPa (bar)  MPa (bar)  MPa (bar)  14,5 (145)  Nozzle size  O38  Max. operating over-pressure  MPa (bar)  MPa (bar)  MPa (bar)  Max. operating temperature of hot water  C  98  Detergent suck in  I/h (I/min)  O-45 (0-0,75)  Burner performance  kW  43  Maximum consumption of heating oil  Max. recoil force of hand spray gun  N  28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun  m/s²  <2,5
Max. feed pressure MPa (bar) 0,6 (6) Inlet hose length m 7,5 Inlet hose diameter (min.) Inch 3/4 Max. suction height from open container (20 °C) m 1  Performance data  Water flow rate I/h (I/min) 600 (10) Operating pressure of water (using standard nozzle) MPa (bar) 14,5 (145) Nozzle size 038 Max. operating over-pressure MPa (bar) 20 (200) Max. operating temperature of hot water °C 98 Detergent suck in I/h (I/min) 0-45 (0-0,75) Burner performance kW 43 Maximum consumption of heating oil kg/h 4,1 Max. recoil force of hand spray gun N 28 Values determined as per EN 60355-2-79 Hand-arm vibration value Hand spraygun m/s² <2,5
Inlet hose length m 7,5 Inlet hose diameter (min.) Inch 3/4  Max. suction height from open container (20 °C) m 1  Performance data  Water flow rate   I/h (I/min) 600 (10) Operating pressure of water (using standard nozzle) MPa (bar) 14,5 (145) Nozzle size 038  Max. operating over-pressure MPa (bar) 20 (200)  Max. operating temperature of hot water °C 98  Detergent suck in I/h (I/min) 0-45 (0-0,75)  Burner performance kW 43  Maximum consumption of heating oil kg/h 4,1  Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Inlet hose diameter (min.)  Max. suction height from open container (20 °C) m  Performance data  Water flow rate  Water flow rate  I/h (I/min)  Operating pressure of water (using standard nozzle)  Nozzle size  MPa (bar)  Max. operating temperature of hot water  C  MPa (bar)  Max. operating temperature of hot water  C  MPa (bar)  Max. operating temperature of hot water  C  MPa (bar)  Max. operating temperature of hot water  C  MBar (bar)  Max. operating temperature of hot water  C  MPa (bar)  Mpa (bar)
Max. suction height from open container (20 °C) m  Performance data  Water flow rate   I/h (I/min)   600 (10)  Operating pressure of water (using standard nozzle)   MPa (bar)   14,5 (145)  Nozzle size   038  Max. operating over-pressure   MPa (bar)   20 (200)  Max. operating temperature of hot water   °C   98  Detergent suck in   I/h (I/min)   0-45 (0-0,75)  Burner performance   kW   43  Maximum consumption of heating oil   kg/h   4,1  Max. recoil force of hand spray gun   N   28  Values determined as per EN 60355-2-79  Hand-arm vibration value   m/s²   <2,5
Performance data  Water flow rate
Water flow rate
Operating pressure of water (using standard nozzle) MPa (bar) 14,5 (145)  Nozzle size 038  Max. operating over-pressure MPa (bar) 20 (200)  Max. operating temperature of hot water °C 98  Detergent suck in I/h (I/min) 0-45 (0-0,75)  Burner performance kW 43  Maximum consumption of heating oil kg/h 4,1  Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Nozzle size         038           Max. operating over-pressure         MPa (bar)         20 (200)           Max. operating temperature of hot water         °C         98           Detergent suck in         I/h (I/min)         0-45 (0-0,75)           Burner performance         kW         43           Maximum consumption of heating oil         kg/h         4,1           Max. recoil force of hand spray gun         N         28           Values determined as per EN 60355-2-79           Hand-arm vibration value           Hand spraygun         m/s²         <2,5
Max. operating over-pressure MPa (bar) 20 (200)  Max. operating temperature of hot water °C 98  Detergent suck in I/h (I/min) 0-45 (0-0,75)  Burner performance kW 43  Maximum consumption of heating oil kg/h 4,1  Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Max. operating temperature of hot water  OC  OB  Detergent suck in  I/h (I/min)  O-45 (0-0,75)  Burner performance  kW  43  Maximum consumption of heating oil  Max. recoil force of hand spray gun  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun  M/s²  <2,5
Detergent suck in
Burner performance kW 43  Maximum consumption of heating oil kg/h 4,1  Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Maximum consumption of heating oil kg/h 4,1  Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Max. recoil force of hand spray gun N 28  Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Values determined as per EN 60355-2-79  Hand-arm vibration value  Hand spraygun m/s² <2,5
Hand-arm vibration value Hand spraygun m/s² <2,5
Hand spraygun m/s <sup>2</sup> <2,5
Spray lance m/s <sup>2</sup> <2,5
Uncertainty K m/s <sup>2</sup> 1
Sound pressure level L <sub>pA</sub> dB(A) 89
Uncertainty K <sub>pA</sub> dB(A) 2
Sound power level L <sub>WA</sub> + Uncertainty K <sub>WA</sub> dB(A) 104
Fuel
Fuel tank capacity I 3,6
Fuel Diesel
Contents of fuel container I 21
Fuel (burner) Fuel oil EL or Diesel
Oil quantity - pump I 0,3
Oil type - pipe Engine oil Order no. 6.288-050.0
Dimensions and weights
Length x width x height mm 1228 x 917 x 767
Weight (without accessories) kg 131,5

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