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Clarke INTERNATIONAL

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

020 - 8988 - 7400

e-mail: Parts@clarkeinternational.com e-mail: Service@clarkeinternational.com

Clarke™ POWER WASHER

HLS 125 & 155 HOT WASHER



OPERATING & MAINTENANCE
INSTRUCTIONS



Thank you for purchasing this CLARKE Hot Washer.
This machine is a lightweight, portable, high pressure power washer, designed for DIY and commercial use.

It comprises an electric motor, a pump, a high pressure hose with a trigger and lance, and an adaptor for injecting foam or cleaning agents into the water jet. Additionally, a burner is incorporated to provide hot water, when required, for hot washing.

Before attempting to use your Hot Washer, please read this instruction manual thoroughly and follow all instructions carefully. By doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the washer giving you long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase. This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

SAFETY PRECAUTIONS

WARNING

Water at high pressure can be dangerous and may cause severe damage to persons or property if subject to misuse.

NEVER allow anyone to operate this equipment unless they are thoroughly reliable, and completely familiar with the safety precautions.

1. Never direct the spray jet at any person or animal.
2. Never hold a finger over the high pressure nozzle.
3. Never direct the spray jet at the machine itself or any other electrical equipment.
4. After use, and before disconnecting hoses, release the pressure in the high pressure hose by operating the trigger. Do not attempt to disconnect any hose or coupling with pressure still in the hose.



ACCESSORIES

A range of accessories designed for use with your washer are available from your Clarke dealer, as follows:

| | Part No. |
|---------------------------------------|----------|
| Rotary Brush | 7310160 |
| Water Sandblaster | 7310161 |
| Drain Cleaner | 7310163 |
| Heavy Duty Extension Hose (10M) | 7310162 |
| Traffic Film Remover 5 litre | 3050821 |
| Traffic Film Remover 25 litre | 3050820 |
| Wash 'n Wax 5 litre | 3050815 |

TECHNICAL SPECIFICATIONS

| | MODEL | |
|----------------------------------|----------------------|-----------------------|
| | HLS125 | HLS155 |
| Maximum Pressure | 100Bar (1500psi)max. | 150Bar (2200psi) max. |
| Motor Rating | 3.1kW | 5.5kW |
| Volts/phase | 230V 50Hz 1Ph | 400V 50Hz 3Ph |
| Fuse Rating | 20Amps | 15Amps |
| Litres/min | 12 | 15 |
| Fuel | Diesel/Paraffin | Diesel/Paraffin |
| Max.H ₂ O Temp. Input | 60° | 60° |
| Max. Water Temperature | 100°C | 100°C |
| Part No. | 7320520 | 7320530 |

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate

For Spare Parts and Service, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

MAINTENANCE

Before each use

Check the oil level in the pump crankcase. This should be filled to the centre of the sight glass located at the rear of the pump (i. Fig3).

Top up if necessary using SAE 20W 50 oil.

After each use

When using chemical detergents, always ensure the system is thoroughly flushed out after use.

Ensure the hoses and power cable are coiled and properly stowed. DO NOT allow them to be left casually, in a heap. This invites damage and will cause rapid deterioration. Take care NOT to drape the hoses/cables over the hot exhaust.

Periodically

Remove the Detergent Tank Filler Cap, check and clean the filter on the chemical hose.

SERVICING

1. Oil burner

It is recommended that the oil burner be serviced yearly, or as needed depending upon the machines' usage. Please contact the CLARKE International Service Dept.

2. Limescale

Periodically, check the heating coil for limescale buildup. This will be dependant upon the relative hardness of your water supply.

When de-scaling is required, use a large water tank, to gravity feed the washer, and add de-scaler according to the manufacturers instructions.

Set the machine up to operate at 40°C, remove the gun and place the hose end into the water tank.

Operate for approximately 40 minutes.

Remove the lance and flush the machine with clean water for a few minutes.

3. Soot Build up

Poor grades of fuel oil or inadequate combustion will cause heavy build up of soot on the heating coil. This deposit will insulate the coil and reduce efficiency. It will restrict air flow through the coil, further aggravating the soot build up. Contact your CLARKE dealer or CLARKE International Service Dept. on: 020 8988 7400 when de-sooting is required.

- Never operate the machine with any of the covers removed.
- Do not, attempt any electrical or mechanical repair. If you have a problem with your machine contact your local dealer or Clarke Services Dept., tel: 020 8988 7400
- Never supply any liquid other than water to the water inlet.
- Use only chemical cleaning agents (detergents) approved for power washing when using the chemical injection facility.
- Never use the chemical injection facility to introduce solvents e.g., paint thinners, petrol, oil, etc.
- Do not operate the machine whilst standing on ladders: use a platform tower or scaffolding.
- Children should not be allowed to use the machine.
- We recommend the use of safety goggles when using machine in any application where loose particles of stone or grit etc. may be blown around by the high pressure spray.
- When not in use, disconnect from the water and electrical supply's, and ensure the system is completely drained. Store in a dry, frost free environment.
- Disconnect from the mains supply before carrying out any maintenance or servicing.
- Never pull the washer by the power cable, or yank the cable it to disconnect from the socket. Keep the cable away from heat, oil or sharp edges.
- Observe all precautions regarding the use of flammable liquids when filling the fuel tank.
- Take care when handling the lance when hot washing. The metal components can become very hot. It is strongly advised that a good pair of industrial gloves be worn.
- DO NOT operate the machine indoors or in enclosed areas without adequate ventilation, or in areas where flammable vapours (Petrol, solvents etc.), may be present.



IMPORTANT:

If the machine must be used in an enclosed area, ensure the burner exhaust is vented to the outside atmosphere. All venting must be in accordance with applicable laws and local ordinances for such installations.

ELECTRICAL CONNECTIONS

THIS MACHINE MUST BE EARTHED

HLS 125 only

The conductors in the mains cable should be connected to a standard 230 volt (50Hz) supply via a suitable industrial 3-pin plug and a fused isolator switch with a fuse rating of 20Amps.

IMPORTANT: A domestic 13Amp plug **MUST NOT** be fitted to this appliance.

The wires in the mains lead should be wired up in accordance with the following colour code:

| | | |
|----------------|---|---------|
| Green & Yellow | - | Earth |
| Blue | - | Neutral |
| Brown | - | Live |

As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

Connect GREEN & YELLOW coloured cord to plug terminal marked with a letter "E" or Earth symbol ⏏ .

Connect BROWN coloured cord to plug terminal marked letter "L"

Connect BLUE coloured cord to plug terminal marked letter "N"

We recommend that this machine is connected to the mains supply through a Residual Current Device (RCD).

HLS155 only

Connect the mains lead to a suitably fused 400V, 3 phase electrical supply. We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD).

This installation should be carried out by a qualified electrician.

FUSE RATING

The fuse rating for this machine is 15 Amps

EXTENSION CABLES

If an extension cable is used, always ensure it is fully unwound. When used outdoors, ensure the extension cable is specifically designed for outdoor use.

Ensure that the cable is rated for the voltage and amperage of the machine.

IF IN DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

Do not carry out any electrical repair yourself.

SHUTTING DOWN THE MACHINE

1. Turn Steam Control (l) fully clockwise.
2. Turn Ignition Switch (p) to the OFF (0) position.
3. Operate trigger on lance until machine runs cold and all detergent is expelled.
4. Turn Starter Switch (n) to the OFF (0) position.
5. Disconnect Electrical supply
6. Turn off and disconnect water supply
7. Operate trigger on lance to remove pressure from the high pressure hose.

NOTE: Get into the habit of ALWAYS operating the trigger before un screwing the high pressure hose.

NOTES ON OPERATION AND STORAGE

1. The machine should always be located on a firm level surface where it is not exposed to extreme conditions such as strong wind, freezing or rain.
2. It is recommended that where possible a partition be erected between the wash area and the machine to prevent accidental spraying of the machine. Moisture entering the washer may cause serious damage.
3. Do not operate the machine indoors, or in enclosed areas, without adequate ventilation, or in areas where flammable vapours (gasoline, solvents etc.) may be present.

If the equipment is to be used in an enclosed area the burner exhaust **MUST BE** vented to the outside atmosphere. The use of a draft regulator is recommended. All venting must be in accordance with applicable laws and local ordinances for such installations.

4. In cold weather or when the machine is to be put into storage you must take precautions against freezing and rusting as follows:-
 - a) Switch machine on **BRIEFLY** to expel any water. **CAUTION - DO NOT RUN DRY.**
 - b) Remove the cover and then remove lid (j) from the water tank.
 - c) Fill tank with anti-freeze, then replace cover.
 - d) Turn steam control (l) fully anti-clockwise.
 - e) Turn Starter Switch (n) to the ON (1) position.
 - f) Operate trigger on lance until anti-freeze reaches nozzle.
 - g) Turn Starter Switch (n) to the OFF (0) position.
 - h) Operate trigger to release pressure from high pressure hose.
5. Store the Hot Washer preferably under cover, protected from the elements.

1. Check that all switches on the machine are in the OFF position.
2. Turn on the water supply
3. Connect the mains lead to the mains supply and switch on the power supply.

A COLD WASH OPERATION (Ref: Fig.3)

1. Turn Detergent Control (k) fully clockwise.
2. Turn Steam Control (l) fully clockwise.
3. Ensure Ignition Switch (p) is in the OFF (0) position. Ensure Temperature Control (r) is turned fully anti-clockwise.
4. Turn Starter Switch (n) to the ON (1) position.
5. Operate trigger on Lance for high pressure jet.
6. If detergent is required turn the Detergent Control (k) anti-clockwise for desired amount of detergent.

NOTE:

As the detergent is introduced before the pump, allow a short period in operation to allow the detergent to work its way through the system.

B HOT WASH OPERATION (Ref: Fig.3)

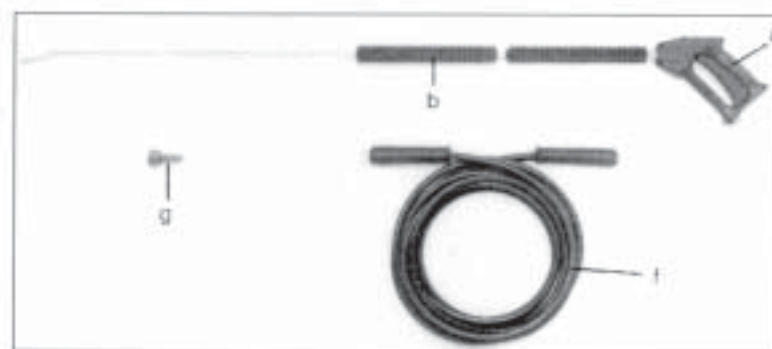
1. Turn Detergent Control (k) fully clockwise.
2. Turn Steam Control (l) fully clockwise.
3. Ensure Ignition Switch (p) is in the OFF (0) position.
4. Select Temperature required on the Temperature Control (r).
5. Turn Starter Switch (n) to the ON (1) position.
6. Turn Ignition Switch (p) to the ON (1) position.
7. Operate trigger on lance for high pressure hot water jet.
8. To increase or decrease temperature adjust the Temperature Control (r).
9. If detergent is required turn the Detergent Control (k) anti-clockwise for desired amount of detergent.
10. If steam is required turn Temperature Control (r) fully clockwise and turn Steam Control (l) fully anti-clockwise.

ASSEMBLY AND PREPARATION FOR USE

Before proceeding with assembly of your new Clarke Hot Washer, check that all the parts listed below are included.

- 1 HLS 125 or HLS 155 Hot Washer (with fitted electric cable)
- 1 Lance handle with extension (a, Fig. 1)
- 1 Lance (b, Fig. 1)
- 1 High pressure hose (f, Fig. 1)
- 1 Water inlet connection (g, Fig. 1)

Fig. 1.



(Letters in brackets refer to Fig's. 1, 2 and 3)

1. Screw Lance (b) to Lance Handle (a).
2. Screw one end of High Pressure Hose (f) to the threaded end of Lance Handle (a). Screw the other end of High Pressure hose (f) to the machine outlet (v).
3. Connect your water supply hose (not supplied) to the Water Inlet Connection (g) using a suitable worm drive clip (not supplied). Connect the Water Inlet Connection (g) to machine's Inlet (s).

NOTE: Ensure water supply is of adequate volume and hose is of sufficient bore.

4. Fill Diesel Fuel Tank, Unscrew Diesel Filler Cap (t, Fig.3), and fill tank with diesel fuel or paraffin. **IMPORTANT: DO NOT MIX THEM**
5. If you intend to use the detergent injection facility fill the Detergent Tank. Unscrew Detergent Filler Cap (h, Fig.2), located at the front of the machine and fill tank with detergent.

WARNING:

Use only chemicals (detergents) designed for use with power washers. We recommend the use of Clarke Traffic Film Remover, which is a powerful low-foaming surfactant, for vehicle cleaning as well as other general cleaning tasks.

6. Before use check the oil level in the pump crankcase. This should be filled to the centre of the sight glass (i), located at the rear of the pump. Top up if necessary using SAE 20W 50 oil.

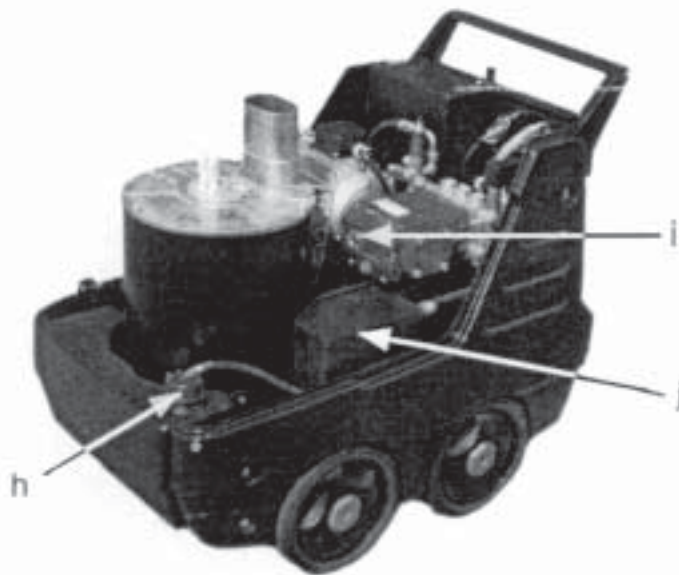
NOTE:

- a. *Do not mix grades of oil as this may effect the machines performance.*
b. *See Maintenance and Servicing for oil change schedule.*

7. Check the water supply to machine. Remove the machine cover by unscrewing the 3 retaining screws. Turn on the water supply.

Remove lid (j) from the machine's water tank and check that the tank has filled. Replace lid (j) and replace machine cover using the 3 retaining screws to secure.

fig. 2



OPERATION

Your hot washer is now ready for use. Before proceeding however, please refer to Fig. 3 and familiarise yourself with the machine controls as follows:-

- | | |
|--|-----------------------------|
| k Detergent Control | r Temperature Control |
| l Steam Control | s Cold Water inlet |
| m Water Pressure Gauge | t Fuel Filler Cap |
| n Starter Switch | v Hot Water Outlet |
| p Ignition Switch (hot/cold control) | |

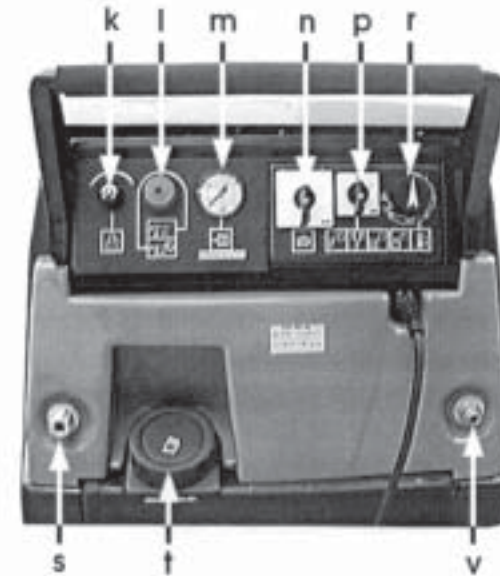


fig. 3

