



**LCT12150PLR**



**Original Manufacturer Instructions**



# Introduction

This manual and any other literature supplied must be read fully prior to the initial operation of your machine and be stored for later use or for subsequent owners. Pay particular attention to any instructions relating to operation and safety and maintenance of the unit. Following these instructions will ensure optimum performance, reliability and operator safety. The model and serial number on the cover of this booklet must be quoted should you need to contact the dealer or manufacturer regarding usage, maintenance and warranty queries.

# Recommended Safety Standards & Directives

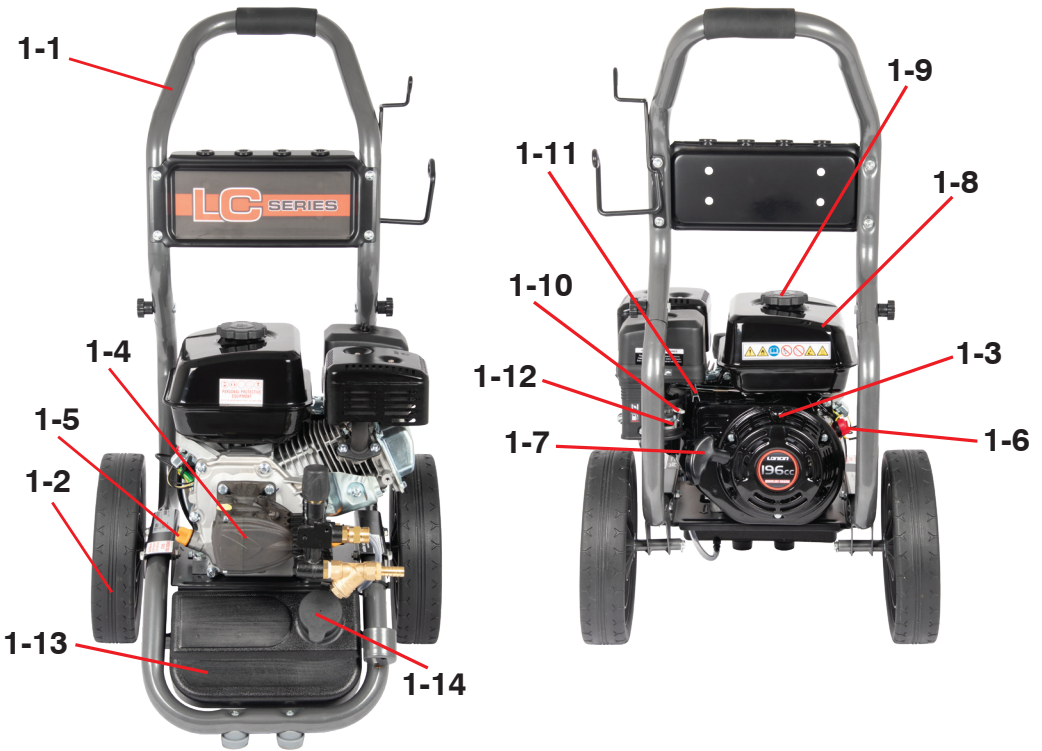
This manual highlights certain safety measures which must be taken in to consideration when using this machine. However, each system designer, contractor and operator must make their own risk assessments whilst considering their individual application and environment and ensure the user is properly trained and wearing protective clothing to the required regulatory standards. We recommend visiting the Health and Safety Executive website at [www.hse.gov.uk](http://www.hse.gov.uk) to be properly informed on best practice in the UK.

# Contents

**Page**

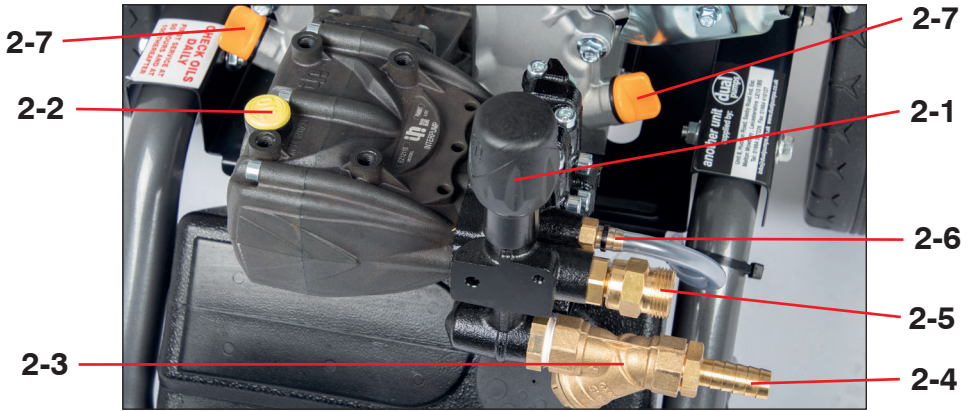
1. Component Identification.....	1-2
2. Technical Specification.....	3
3. Intended and Proper Use - Commercial.....	4
4. Safety Information .....	4-5
5. Safety Devices.....	5
6. Standard Accessories .....	6
7. Pre-Operation Checks and Set Up .....	6-8
8. Start Up and Operation.....	9-10
9. Stopping Procedure.....	10
10. Transporting .....	10
11. Decommissioning and Storage .....	10
12. Maintenance Information .....	11
13. Pressure Washer Maintenance Schedule.....	11
14. Troubleshooting .....	12
15. Disposal and Environmental Protection .....	12
16. Warranty Information.....	13
17. EC Declaration of Conformity .....	13

# 1. Component Identification - Main Machine (1)

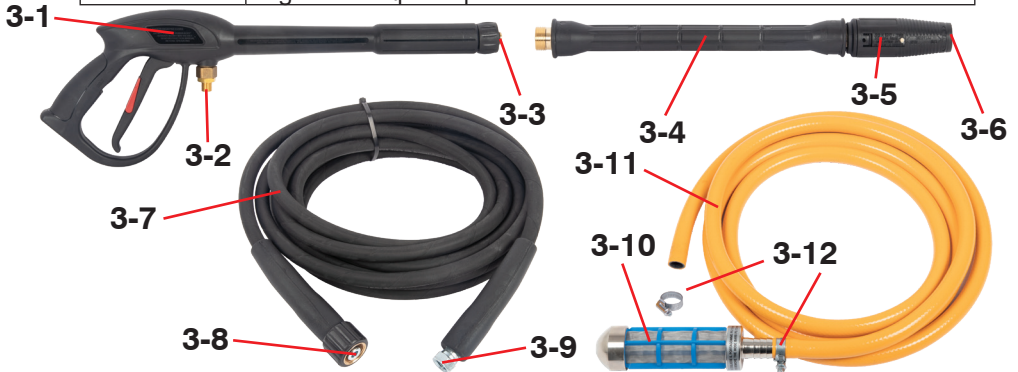


Item No.	Main Machine Photos
1-1	Trolley Frame
1-2	Trolley Wheels
1-3	Engine
1-4	High Pressure Pump
1-5	Engine Oil Dipstick & Filler
1-6	Engine Ignition On/Off Switch
1-7	Engine Recoil Starter Pull Cord
1-8	Engine Fuel Tank
1-9	Fuel Filler Cap
1-10	Engine Choke Lever
1-11	Engine Throttle Control
1-12	Engine Fuel Cut-Off Lever
1-13	Chemical Tank
1-14	Chemical Filler Cap

# 1. Component Identification - Pump Close Up (2) & Accessories (3)



Item No.	Pump Close up
2-1	Unloader Valve & Pressure Adjustor Knob
2-2	Oil Breather Dipstick
2-3	Suction Filter
2-4	Suction Filter Inlet
2-5	High Pressure Outlet
2-6	Chemical Injector
2-7	Engine Oil Cap & Dipstick



Item No.	Accessories
3-1	Trigger Gun
3-2	Trigger Gun Inlet
3-3	Trigger Gun Outlet Connector
3-4	Lance Extension
3-5	Adjustable Nozzle Head
3-6	High Pressure Outlet
3-7	High Pressure Delivery Hose
3-8	M22 Hose Connection
3-9	1/4" BSPF Connection
3-10	Suction Filter
3-11	Suction Hose
3-12	Hose Clips

## 2. Technical Specification

	Model No.	LCT12150PLR
Engine Information	Engine	Loncin G200-F
	Fuel	Petrol
	Power	6.5 HP (4.85 kW) - SAE J1349
	Nominal Rpm	3400-3600
	Starting Method	Recoil start
	Fuel Tank	3.6 Litres
Water Connection	Max Feed Temperature	40°C
	Minimum Feed Flow Rate	15 Lpm
	Maximum Feed Pressure	1 MPa - 10 Bar - 145 psi
	Maximum Suction Depth	1 Metre (3.3 Feet)
High Pressure Performance	Flow Rate	12 Lpm
	Working Pressure	15 Mpa - 150 Bar - 2175 psi
	Nozzle Jet Size	1.25mm
	Max. recoil force on Spray Gun	25 N
Hand-Arm Vibration Value	Hand Spray Gun	<2.5 m/s
	Spray Lance	<2.5 m/s
	Uncertainty K	1
Sound Levels	Uncertainty K	0.7
	SPL LWA dB*	92.8
	GSPL LWA dB**	106
Oils	Pump Oil Type	SAE 15W/40
	Engine Oil	Refer to engine user manual
Weights & Dimensions	Dimensions	650L x 515W x 930H (mm)
	Weight	43.5 Kg


\*SPL = Sound Power Level on equipment representative of this type

\*\*GSPL = Guaranteed Sound Power Level for this equipment.

### Notes

For the engine to reach its maximum power, and the unit to achieve full rated performance, the machine must be run in for at least 10 hours. The engine's performance diminishes as altitude and ambient temperature increase. If the machine is to be used at altitude or with a high ambient temperature please refer to the engine user manual for guidance and any necessary precautions.

### 3. Intended and Proper Use - Commercial

 This machine is intended for Commercial use and is not suitable for normal housekeeping purposes by private persons whereby there may be a source of danger to the public. The machine must be used solely by professional contractors who are properly trained and wearing protective clothing to the required health & safety, and national legislation regulatory standards.

The intended use of this high pressure cleaner is exclusively for:

- Cleaning of machines, vehicles, buildings, and tools with **clean, soft water** and, if necessary, with detergents approved by the manufacturer.
- Descaling and clearing of blocked pipes and hydro sandblasting by means of special accessories recommended by the manufacturer.
- Use with accessories rated to the performance of the high pressure cleaner.


The high pressure cleaner **MUST NOT** be used:


- To wash people, animals, live electrical equipment, delicate objects or the high pressure cleaner itself.
- In environments in which explosive or corrosive atmospheres are present.
- In poorly ventilated areas where exhaust gases from the engine could cause harm to the user and public unless adequate ventilation is approved by national labour authorities.
- By persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or necessary knowledge.

**Any other use must be considered improper and the manufacturer cannot be considered responsible for possible damages caused by the improper or incorrect use.**

### 4. Safety Information

 **WARNING - Not following the instructions given below may cause serious injury to persons, harm to the environment and damage to equipment.**

 This machine must only be used in applications covered in section 3, Intended and Proper Use.

 Use the following personal protective equipment (PPE)



Wear protective clothes



Wear protective ear muffs














Wear protective gloves



Wear a face shield




Wear safety boots

-  This machine has been designed for use only with cleaning agents approved by the manufacturer. The use of other cleaning agents or chemicals may adversely affect the safety of the machine.
-  High pressure jets can be dangerous if subject to misuse. The jet must not be directed at persons, animals, live electrical equipment or the machine itself.
-  Do not use the machine within range of persons unless they wear protective clothing.
-  Do not direct the jet against yourself or others in order to clean clothes or footwear.
-  Risk of explosion - Do not spray flammable liquids.
-  High pressure cleaners shall not be used by children or untrained personnel.
-  High pressure hoses, fittings and couplings are important for the safety of the machine. Use only hoses, fittings and couplings recommended by the manufacturer.
-  To ensure machine safety, use only original spare parts from the manufacturer or approved by the manufacturer. **USE OF NON APPROVED PARTS WILL VOID WARRANTY.**
-  Water that has flowed through backflow preventers is considered to be non-potable
-  Do not use if machine, component part, or any accessory is damaged or worn.
-  Pressure washers should never be left unattended. Always switch the machine off before breaking from work.



Machine not suitable for connection to the potable water mains.

## 5. Safety Devices

-  Safety devices serve to protect the user and machine and must not be rendered in operational or their functions bypassed. Safety devices must not be tampered with by the user as this could result in serious injury and/or damage to the machine.

**Integrated Unloader or Bypass Valve** - Pre-set by the manufacturer, for regulating the working pressure allowing pumped fluid to circulate in the head of the pump when the operator closes the trigger gun. The unloader valve fitted to this pressure washer is a trapped pressure type valve which, when the trigger is closed, maintains pressure in the high pressure line.

**Trigger Gun Safety Latch** - Safety stop for locking the trigger gun lever in the closed position so it cannot be opened accidentally.

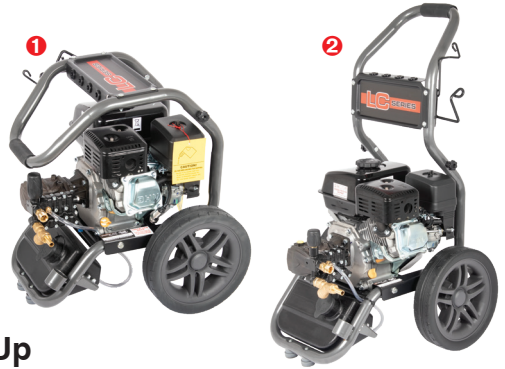
## 6. Standard Accessories

The LCT12150PLR pressure washer is supplied with the following accessories. Make sure all the items listed are included when unboxing for the first time.

- Two part high pressure lance assembly.
- 8m high pressure hose assembly.
- 3m suction hose assembly with suction filter and hose clamps.
- Miscellaneous accessories and handbooks

**In case of transport damage inform vendor immediately. When unpacking the product, make sure that no accessories are missing and that none of the package contents have been damaged.**

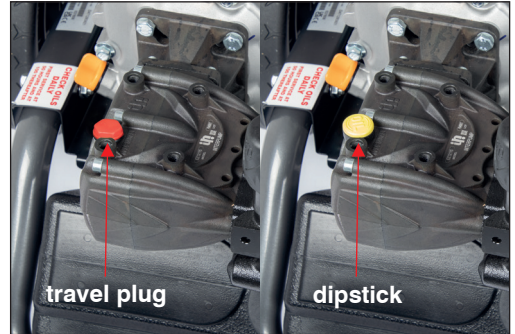
The LCT12150PLR trolley will be assembled as in pic ① for shipping so will need altering to as it is in pic ② before first use. To do this unscrew the two nuts and bolts on the trolley handle, reposition the handle then re-fit the nuts and bolts to secure the trolley handle in place.



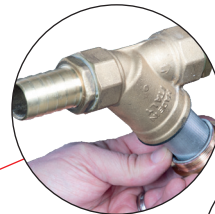
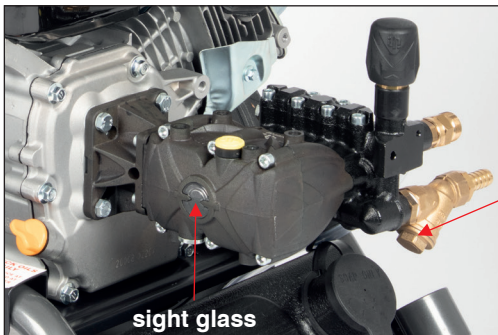
## 7. Pre-Operation Checks and Set Up

① **DAMAGE?** Before each period of use ensure the machine and all components and accessories are complete and undamaged. Take care to ensure the suction hose is kink-free.

② **TRAVEL PLUGS** - On the pump REMOVE THE RED TRAVEL PLUGS and replace with the appropriate yellow-topped oil dipstick/breather.



③ **OIL LEVELS** - Check oil levels on the sight glass of the pump, the oil should be half way up the sight glass - ensure machine is on a level surface.



Check that the pump inlet filter is clean

Also check that the suction hose filter is clean





## 7. Pre-Operation Checks and Set Up

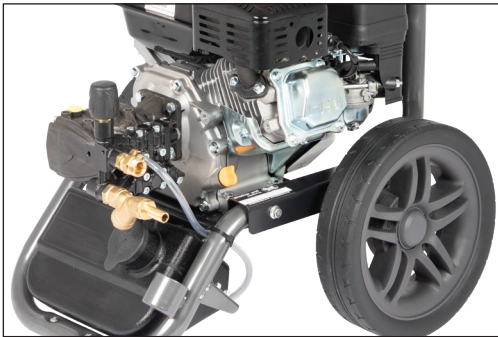
④ **ENGINE OIL** - Use the engine dipstick to check the engine oil level, refer the engine manufacturers handbook for levels and oil types then add the required amount.



⑤ **FUEL** - Fill the fuel tank with petrol fuel, refer to the engine manufacturers handbook for fuel types.



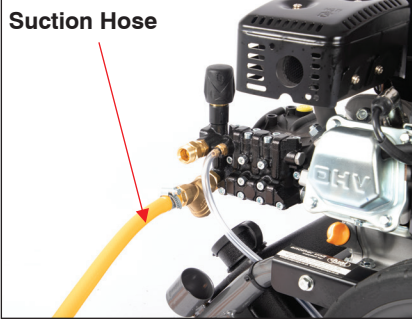
⑥ **CHEMICAL** - If using chemical, fill the integrated chemical tank with an appropriate cleaning product. Always check compatibility before using a chemical.



# 7. Pre-Operation Checks and Set Up

## SET UP

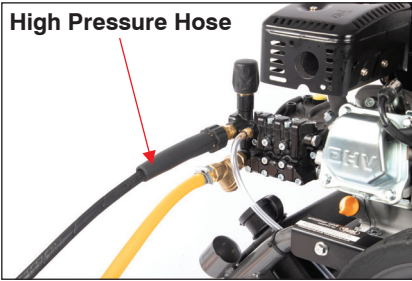
Suction Hose



### 1 Suction Hose

Connect the suction filter and hose assembly to the suction filter hose barb with the supplied hose clip. **Ensure all connections are tight and leak free. Air leaks on the suction side will impair the machine performance and damage components.** Place suction filter in water supply tank ensuring it remains under the water level.

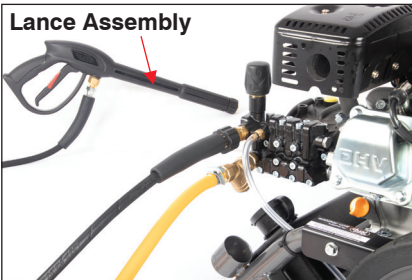
High Pressure Hose



### 2 High Pressure Hose

Connect one end of the high pressure hose assembly to the high pressure outlet of the unloader valve. Ensure the connection is hand tight.

Lance Assembly



### 3 Lance Assembly

Connect the trigger gun to the lance extension, then connect the other end of the high pressure hose to the lance assembly inlet using a suitable tool. **Ensure the trigger gun safety latch is engaged to prevent accidental operation.**



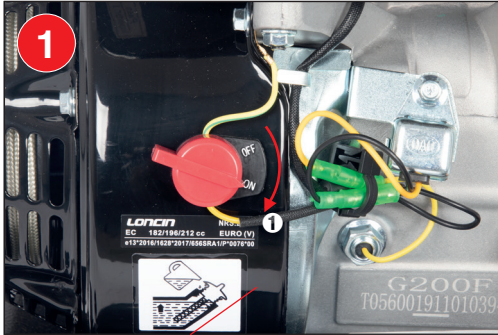
Safety Latch OFF



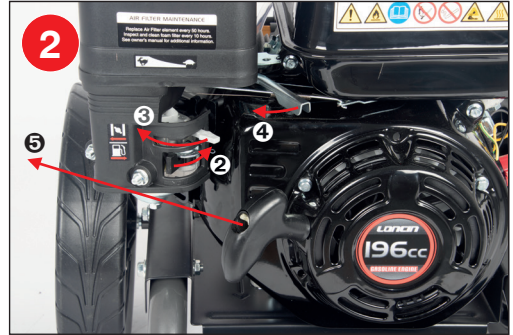
Safety Latch ON

## 8. Start Up and Operation

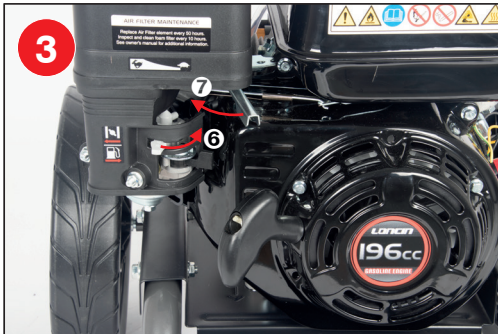
**!** Before starting the machine the user must be familiar with the engine starting and stopping procedure and any safety requirements stated in the engine manufacturer's handbook supplied with the unit.



1 Switch on the engine



- 2 Open the fuel tap
- 3 Close the choke
- 4 Adjust the engine rev lever to half speed
- 5 Pull the recoil to start the engine



- 6 Open the choke until the engine runs smoothly
- 7 Increase the engine revs to full speed




- 8 To switch between high pressure and chemical induction mode, with the trigger closed, move the nozzle head to the rearward position, chemical will now be drawn from the tank when the trigger is opened. To return to high pressure mode, close the trigger and slide the nozzle head to the forward position. The fan jet can be adjusted by twisting the nozzle head.



- 9 Pull the trigger on the gun and lance assembly, the LC Series pressure washer is now ready to use.



## 8. Start Up and Operation

-  **WARNING:** Do not let the pump idle in By-Pass for lengthy periods, if you intend to break from work for more than 5 minutes, switch the machine off. Should the machine run for a longer period, the temperature of the re-circulating water will increase rapidly and could risk damaging the pump seals. Running pressure washers should never be left unattended.

## 9. Stopping Procedure

- **DRAIN PUMP** - Remove the suction hose from the water supply tank and drain the water from the pump by allowing the machine to run for a few seconds with the trigger gun open until no water is coming from the high pressure jet.
- **SHUTDOWN ENGINE** - In keeping with the information from the engine manufacturer's manual, reduce the engine revs and switch the ignition switch to the off position.
- **RELEASE RESIDUAL HIGH PRESSURE WATER** - Pull the trigger gun to release any trapped pressure in the delivery line.
- **TRIGGER GUN SAFETY LATCH** - Ensure the trigger gun safety latch is engaged to prevent accidental operation.
- **COOL DOWN** - Wait for the machine to cool down before transporting.




## 10. Transporting

-  During transportation the machine must be secured using suitably rated straps and fixings.
-  The machine must only be lifted and secured by attaching lifting/security equipment to the main frame. No lifting/security straps should come in to contact with the engine, gearbox, pump, valves or filter.

## 11. Decommissioning and Storage

- **ENGINE** - Follow the guidelines in the relevant section of engine manufacturer's handbook.
- **HOSES AND ACCESSORIES** - Disconnect hoses and lance assembly. Ensure all water is expelled from hoses and lance, check for damage and store in a manner that will not kink the hose assemblies.
- **PRESSURE WASHER** - Ensure all the water is expelled from the pump by turning over the engine.
- **STORAGE** - Machine and accessories must be stored in dry and frost-free environment.

## 12. Maintenance Information

-  **Maintenance and servicing of the machine must only be undertaken by suitably trained and qualified technicians.**
-  **Unloader Valves must only be adjusted and serviced by suitably trained and qualified technicians.**
-  **Ensure all steps from the Decommissioning & Storage section have been carried out before starting any work on the machine.**
- **ENGINE** - Refer to engine manufacturer's handbook for specific engine maintenance and service schedules.

**Do not release oils and fuel into the environment. Dispose of all oils and fuels through suitably certified outlets according to local regulations.**

## 13. Pressure Washer Maintenance Schedule

Activity	Each/ First Use	3 months or first 50 Hours	12 months or 250 hours
<b>Inspect / top up oil levels</b> Engine Pump	* *		
<b>Change Oil</b> Pump (SAE20/30 Pump Oil)  (Change engine oil and filter in-line with the engine manufacturers recommendation), or at -		*  First 3 months or 50hrs only	*  *
<b>Water Suction Filter</b> Clean water inlet filter on suction hose Clean secondary water filter	*  	  *	
Inspect high-pressure hose and its connection for tightness and damage	*		
Inspect suction hose and its connections for tightness and damage	*		
<b>High Pressure Jet</b> Inspect Change	*  		*  

## 14. Troubleshooting

Symptom	Possible Cause	Remedy
Pump running normally but pressure low.	Pressure Regulator valve	Check and adjust
	Pump sucking air	Check water supply and possible air ingress.
	Lance in low pressure mode see page 9	Check and adjust
	Nozzle badly worn Worn piston packing	Check and/or replace Seek professional advice
Fluctuating pressure	Blocked water filter	Check filter, clean or replace if necessary.
	Pump sucking air	Check integrity of suction hose and connections.
Pressure low after a long period of normal use.	Nozzle badly worn	Check and/or replace
Pump noisy.	Pump sucking air	Check integrity of suction hose and connections.
	Excessive temperature of liquid in pump	Reduce temperature to below 60°C, do not allow pump to idle for long periods.
	Blocked water filter	Check filter, clean or replace if necessary.
	Worn bearing or valves	Seek professional advice
Presence of water in oil.	Ingress through breathers	Replace oil, do not wash engine or pump
	Worn oil seals	Seek professional advice
Water dripping from under pump.	Worn piston packing	Seek professional advice
Oil dripping from pump/gearbox/engine.	Worn oil seal	Seek professional advice
Excessive vibration in lance/delivery line.	Water supply low	Check adequacy of water supply. Ensure suction filter is below water level.
	Ingress of air into suction line	Check integrity of suction hose and connections.
	Irregular functioning of valves	Seek professional advice
	Blocked water filter	Check filter, clean or replace if necessary.

## 15. Disposal and Environmental Protection



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.



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

## 16. Warranty Information



For warranty terms refer to **Section 7** of our **Terms and Conditions** at [www.dualpumps.co.uk/company/legal](http://www.dualpumps.co.uk/company/legal) or scan the QR code

## 17. UKCA & EC Declaration of Conformity

### Declaration of Conformity

#### Equipment Type

High pressure cleaner - Engine Driven

#### Relevant UKCA Directives

Supply of Machinery (Safety) Regulations 2008

Electrical Equipment (Safety) Regulations 2016

Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001

#### Relevant EU Directives

2006/42/EC - Machinery Directive

2014/30/EU - Electromagnetic Compatibility (EMC) Directive

2000/14/EU – Noise Emissions Directive

#### Applied Harmonised Standards

EN60335-1-2012-A13-2017

EN60335-2-79-2012

EN1829-1-2010

EN1829-2-2008

EN4871-2009

#### Manufacturer

Dual Pumps Ltd, Saxby Road Industrial Estate, Melton Mowbray, LE13 1BS. United Kingdom

#### Person authorised to compile the technical file & declaration

Tom Herridge, Director

Signed –

Date – 12/01/2022

We hereby declare that the machinery described above complies with the relevant basic health and safety requirements of the UKCA & EU Directives, both in its' basic design and construction. This declaration shall cease to be valid if the machine is modified without our prior approval.



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