Clarke®

ENGINE DRIVEN 3" DIESEL PUMP

MODEL NO: DW75

PART NO: 7230175

OPERATION & MAINTENANCE INSTRUCTIONS

CE

ORIGINAL INSTRUCTIONS

LS1117 ISS 1

INTRODUCTION

Thank you for choosing this Clarke Pump.

The function of this pump is to move clean /dirty water (maximum solid diameter of 10 mm).

DO NOT use it to pump:

- Sewage
- Dangerous liquids
- Salt water

Before you use this pump read the manual fully.

GUARANTEE

This pump is guaranteed against faulty manufacture for a period of 12 months from the date of purchase.

Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the pump has been abused, tampered with, or not used for its primary function.

Faulty goods must be returned to their place of purchase, no pump can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

INVENTORY

You should find the items in the list below in the carton.

1 x Diesel Powered Water Pump	2 x Rubber Washers
2 x 3" Hose Adaptors	3 x 'Jubilee Clip' style hose clip
2 x 3" BSP Locking Rings	1 x Filter / Strainer

Speak to your Clarke dealer if items are missing or damaged.

GENERAL SAFETY RULES

WARNING: WHEN USING PUMPS, ALWAYS FOLLOW BASIC SAFETY PRECAUTIONS TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY. READ ALL INSTRUCTIONS BEFORE YOU OPERATE THIS PUMP AND SAVE THEM FOR FUTURE REFERENCE.

1. ALWAYS obey all safety precautions for the handling of fuel.
2. ALWAYS make sure that you are familiar with this pump and follow all instructions in this manual.
3. ALWAYS make sure that the pump is positioned correctly to prevent it from moving during operation.
4. Keep the area adjacent to the pump clear.
5. ALWAYS connect the strainer to the suction hose to stop stones and other solids from being pulled into the pump. These can cause damage to the pump.
6. ALWAYS keep the pump dry and clear of the discharge hose.
7. Only use parts supplied by the manufacturer. Using non-standard parts can be dangerous.
8. ALWAYS use at least 300mm of flexible hose to make plumbing connections to the pump. Rigid piping can put stress on the pump, causing damage. If you use rigid piping, it must be supported to eliminate strain on the connections.
9. DO NOT refuel the engine while it is operating, let the engine cool before refuelling.
10. DO NOT use to pump petrol (or other flammable liquids), or corrosive chemicals. The function of this pump is to pump WATER ONLY.
11. DO NOT operate this pump in an explosive atmosphere, near combustible materials, or where there is insufficient ventilation.
12. DO NOT let children use this pump.
13. DO NOT run the pump dry. Always fill the pump with water before starting.
14. DO NOT direct the discharge flow towards another person.
15. DO NOT over-tighten drain or filler plugs. Excessive force can damage the threads or the pump body.
16. DO NOT direct the water discharge towards electrical wiring or equipment.

GENERAL SAFETY IN THE WORKPLACE

1. Always keep work area clean & tidy. Cluttered work areas invite accidents.
2. Never over-reach. Keep proper footing and balance at all times.
3. Always make sure that the workplace is well lit. Make sure that that lighting is placed so that you will not be working in your own shadow.
4. Dress correctly. Loose clothing or jewellery can get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
5. Always wear safety glasses. (Everyday glasses are not safety glasses).

CARE OF PUMPS

1. Always examine the pump for damage that can effect the operation.
2. The Clarke service department will only replace damaged components using original spare parts.

Keep the instructions for future reference.

SAFETY SYMBOLS

The meanings of the markings and symbols on the pump are shown below.

	Read this manual before use and keep it for future reference

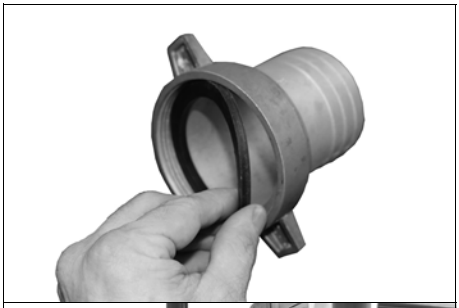
ENVIRONMENTAL PROTECTION

At the end of its working life, do not discard this pump or its components with general household waste. Packaging must be taken to a recycling centre and discarded appropriately.

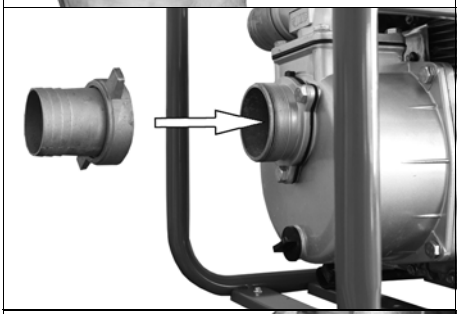
ASSEMBLY

INSTALL THE SUCTION HOSE

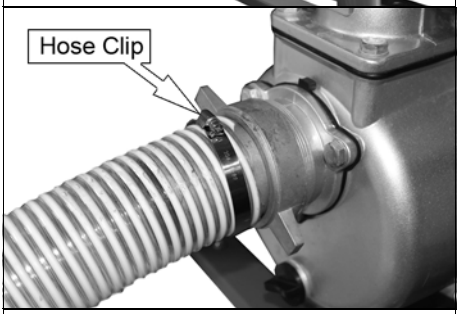
1. Put the rubber washer into the adaptor.
   - Make sure that it is seated correctly.



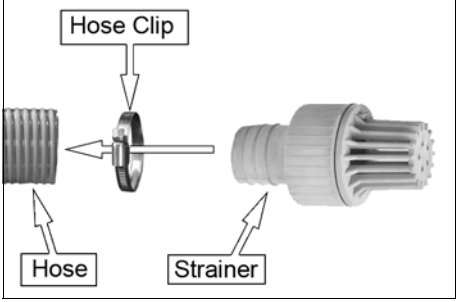
2. Screw the hose adaptor onto the pump.
   - PTFE tape can be used to ensure a good seal.



3. Slide the hose on to the adaptor and lock in position with the hose clip supplied.
   - 3" Reinforced Hose is available from your Clarke Stockist (Part number - 7955030)

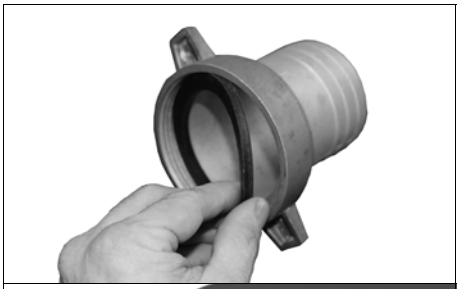


4. Install the strainer on to the other end of the hose following the picture on the right.

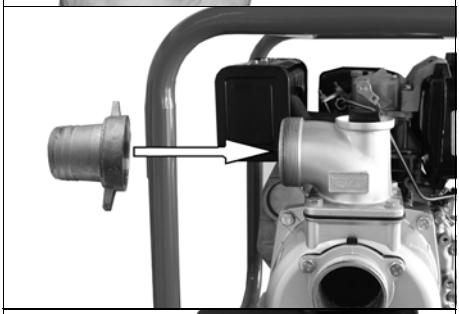


INSTALL THE DISCHARGE HOSE

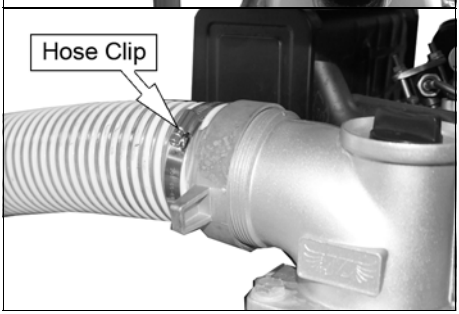
1. Put the rubber washer into the adaptor.
   - Make sure that it is seated correctly.



2. Screw the adaptor onto the pump.
   - PTFE tape can be used to ensure a good seal.



3. Slide the hose onto the adaptor and lock in position with the hose clip supplied.
   - 3" Reinforced Hose is available from your Clarke Stockist (Part number - 7955030.



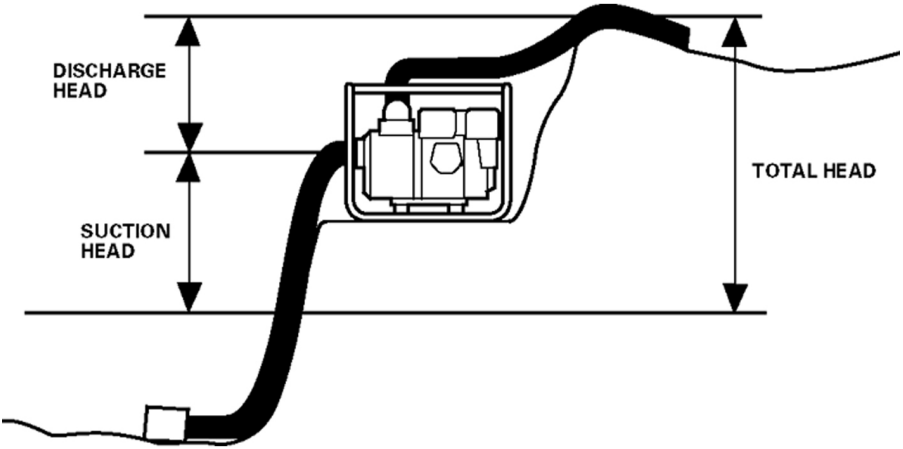
BEFORE USE

POSITIONING THE PUMP

For optimum performance, place the pump near the water level and use hoses that are no longer than necessary.

As "head" (pumping height) increases, pump output decreases. The length and size of the suction and discharge hoses can also effect pump output.

The discharge head is always greater than the suction head, so it is important for the suction head to be the smaller part of the total head.

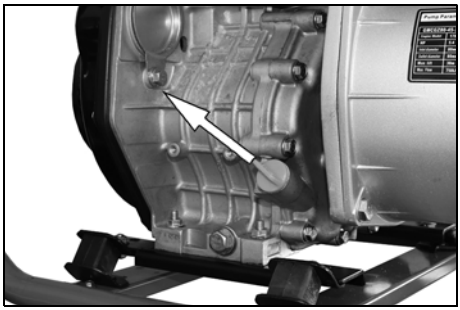


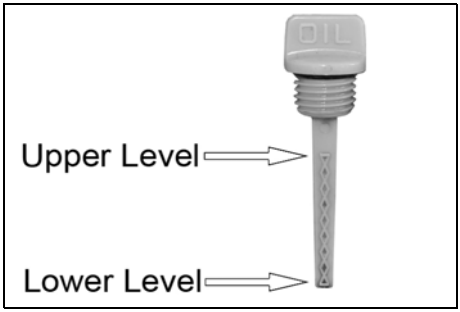
CHECK THE ENGINE OIL LEVEL

WARNING: TO DO THIS CHECK, STAND THE PUMP ON LEVEL GROUND WITH THE ENGINE SWITCHED OFF.

WARNING: BE CAREFUL NOT TO TOUCH HOT PARTS OF THE ENGINE WHEN CHECKING THE OIL LEVEL.

1. Turn the oil filler cap anti-clockwise and remove from the oil filler tube.
2. Wipe the dipstick clean with a lint free cloth.
3. Slide the dipstick into the oil filler tube and remove it again. Do not screw in the oil filler cap/dipstick when doing this.
4. If the oil level is at or below the `Lower level' mark on the dipstick, Fill the crankcase with oil to the `Upper Level' mark.
   - Oil capacity is 1 Litre.
   - We recommend you use SAE 15W40 or SAE10W30 oil in this pump, available from your Clarke dealer.
5. Replace the oil filler cap.





ADD DIESEL FUEL

WARNING: REFUEL IN A VENTILATED AREA, AWAY FROM SOURCES OF IGNITION.

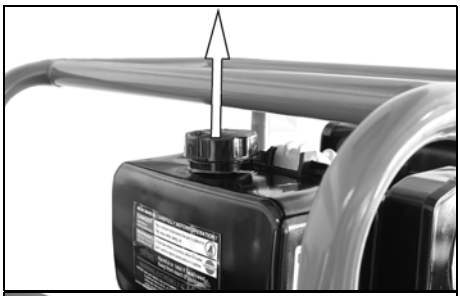
WARNING: IF THE ENGINE IS HOT, LET IT COOL BEFORE REFUELING.

WARNING: KEEP FUEL OUT OF THE REACH OF CHILDREN.

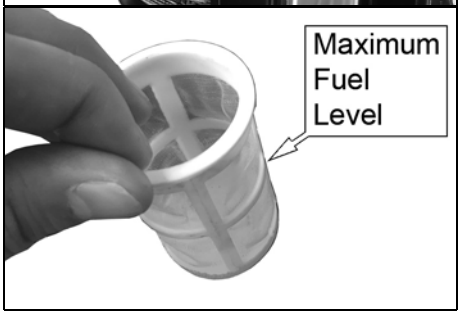
RECOMMENDED FUEL

Only use regular diesel.

1. Remove the fuel tank cap.
   - Inside the fuel tank is a fuel filter which collects contaminants as you refuel.



2. Slowly add fuel to the fuel tank.
   - Make sure that the fuel level is not above the maximum fuel level band on the fuel filter.
3. Replace the fuel tank cap.



OPERATION

WARNING: CHECK THE PUMP FOR DAMAGE BEFORE USE, DO NOT USE THE PUMP IF IT IS DAMAGED IN ANY WAY.

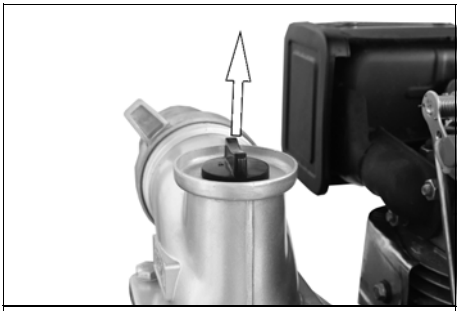
WARNING: THE WATER BEING PUMPED WILL BE POLLUTED IF THIS PUMP BECOMES DAMAGED AND LUBRICANT WITHIN THE ENGINE ESCAPES.

WARNING: WHEN YOU OPERATE THE PUMP THE EXHAUST MUFFLER WILL BECOME VERY HOT.

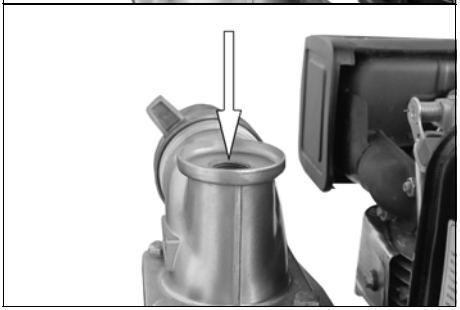
WARNING: DO NOT OPERATE THE ENGINE IN A CLOSED SPACE, MAKE SURE THAT THERE IS SUFFICIENT AIRFLOW AROUND THE PUMP.

PRIME THE PUMP

1. The pump MUST be primed before use.
2. Before starting the engine, remove the filler cap from the pump chamber.



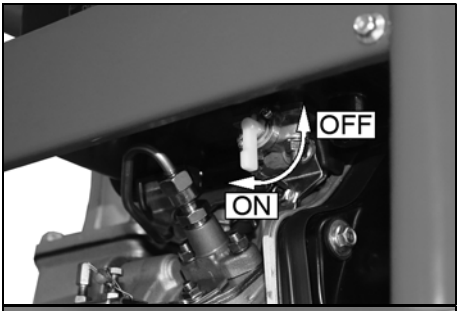
3. Fill the pump chamber with water.
4. Replace the filler cap and tighten it securely.



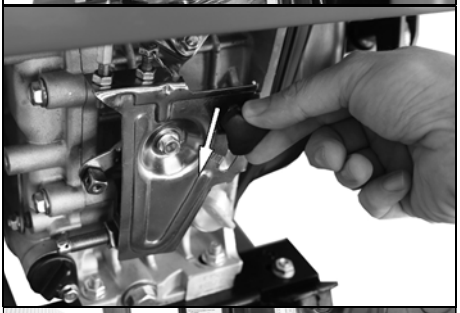
WARNING: OPERATING THE PUMP DRY WILL DESTROY THE PUMP SEAL. IF THE PUMP IS OPERATED DRY, STOP THE ENGINE IMMEDIATELY AND LET THE PUMP COOL BEFORE PRIMING

START THE ENGINE

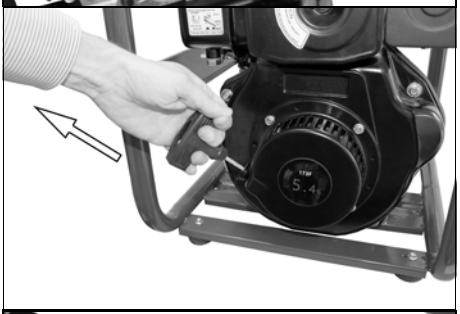
1. **MAKE SURE THE PUMP IS PRIMED (SEE PAGE 10)**
2. Set the fuel valve to the ON position.



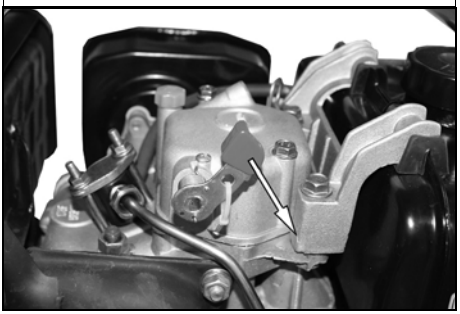
3. Set the speed adjusting knob to the START position.



4. Hold the starting handle tightly and pull until you start to feel resistance, then return it slowly to its initial position.

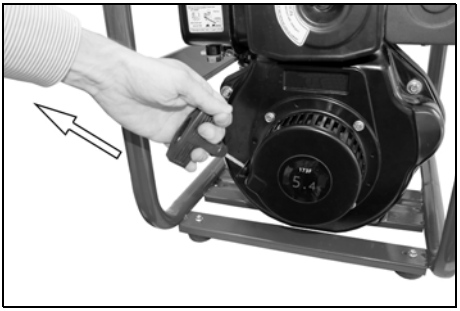


5. Push the decompression lever down and release.



6. Pull the starting handle lightly until you start to feel resistance. Then pull up and away suddenly to start the engine.

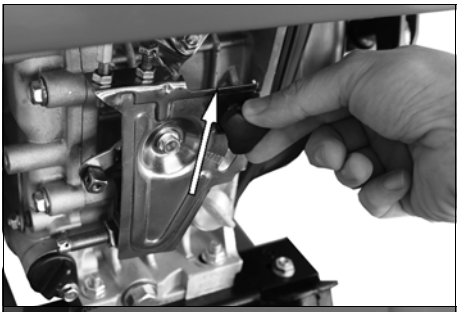
   NOTE: If the engine fails to start go back to step 4 and try again.



WARNING: WHEN THE ENGINE HAS STARTED, RETURN THE STARTING HANDLE SLOWLY TO PREVENT INJURY/DAMAGE AS IT RETURNS.

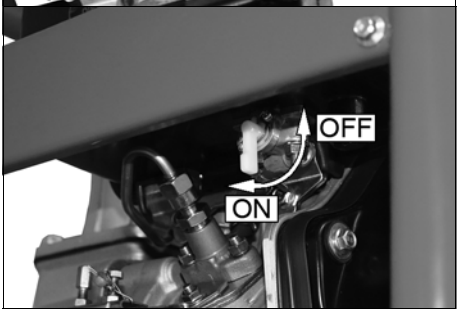
STOPPING THE ENGINE

1. Set the speed adjusting knob to "Stop" position.
   - You do not need to use the decompression lever when stopping the engine.



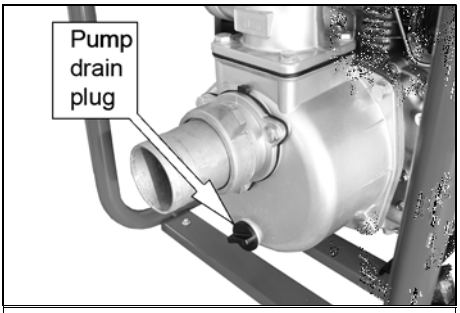
2. Turn fuel switch back to "S" (OFF) position.
3. Hold the starting handle tightly and pull until you start to feel resistance, then return it slowly to its original position.

NOTE: This can help to prevent cylinder corrosion.

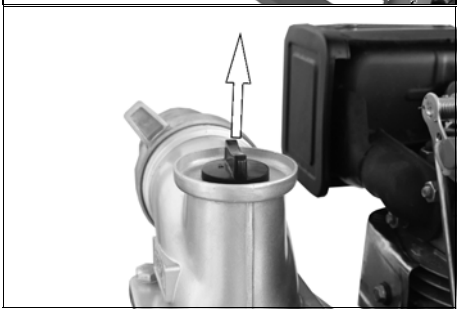


AFTER USE

1. Remove the pump drain plug to drain the pump chamber.



2. Remove the filler cap and flush the pump chamber with clean, fresh water.
3. Let the water drain from the pump chamber, then replace the filler cap and drain plug.



MAINTENANCE

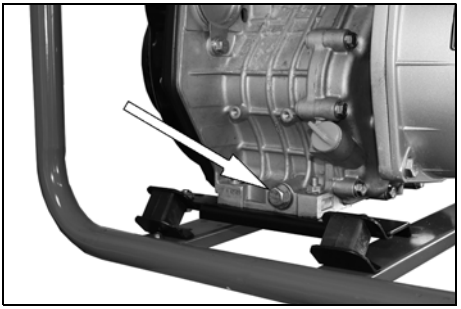
CHANGING THE ENGINE OIL

CAUTION: PROLONGED EXPOSURE TO USED ENGINE OIL IS DANGEROUS, ALWAYS WASH YOUR HANDS THOROUGHLY AFTER HANDLING USED ENGINE OIL.

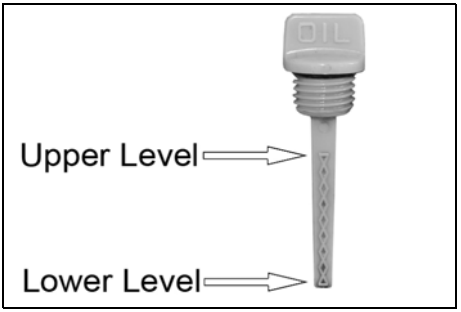
The oil in the engine must be changed after the first 20 hours use and then every 6 months or 100 running hours.

1. Unscrew and remove the oil filler cap/dipstick.
2. Put an oil collection tray below the drain plug.
3. Unscrew the drain plug and let the used engine oil drain from the crankcase into the oil collection tray.

   NOTE: Drain the engine oil when the engine is warm; as the oil will flow more freely.



4. Replace the drain plug.
5. Fill the crankcase with oil to the 'Upper Level' mark on the dipstick.
   - Oil capacity is 1 Litre.
   - We recommend you use SAE 15W40 or SAE10W30 oil in this pump, available from your Clarke dealer.
6. Replace the oil filler cap/dipstick.



ENVIRONMENTAL PROTECTION

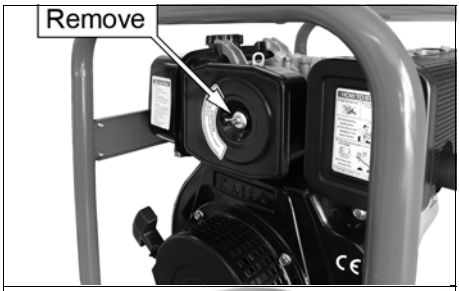
One of the most damaging sources of pollution is oil, do not throw it away or pour it down drains. Put it in a leak proof container and take it to your local waste disposal site.

CHANGING THE AIR FILTER

CAUTION: DO NOT OPERATE THE PUMP WITHOUT THE AIR FILTER INSTALLED AS THIS WILL CAUSE EXCESSIVE WEAR TO THE ENGINE.

Clean the air filter after 50 hours of operation (or more often in unusually dusty conditions) as follows.

1. Remove the wingnut and lift off the air filter cover.



2. Remove the air filter assembly.

3. Remove the air filter element.
4. Clean the air filter or replace if necessary.
   - If the filter is dirty, wash the foam filter in a solution of warm water and mild detergent and rinse thoroughly. Let the filter dry fully.
   - When it is dry, dip the filter in clean engine oil and squeeze out excess oil.

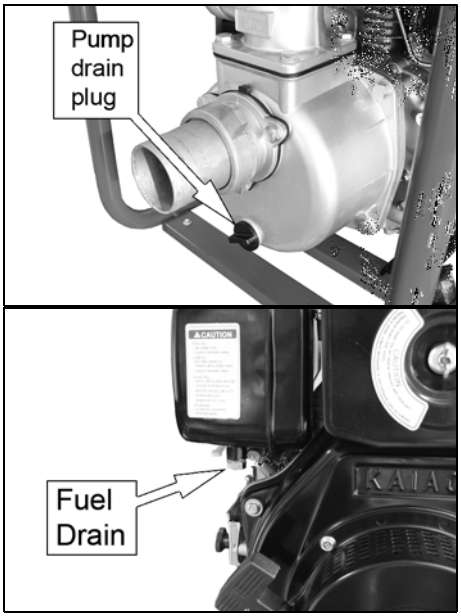
   - It is normal for blue smoke to come out of the exhaust for a short time when the filter has been cleaned.
5. Replace the filter and cover.

STORAGE

Before long-term storage:

1. The pump must be cleaned by flushing with clean water, otherwise, the impeller may be damaged in next operation. After flushing, remove the Pump drain plug and drain all the water from the pump. Then replace the drain plug.

2. Discharge the fuel in the fuel tank. Remove the fuel pipe connector to drain the fuel, then retighten the fuel pipe connector.



SPECIFICATION

Item	Spec
Pump dimensions (L x W x H)	575 x 540 x 595 mm
Pump Weight (kgs)	49.8 kg
Water classification	Dirty / Clean (NOT SEWAGE)
Max solids in suspension	10 mm
Inlet/Outlet Size	3″ BSP
Maximum Flow	750lL/min
Max Head	30 m
Suction Head	7 m
Max Pressure	3 bar
Run time @75% rated load	4.5 hrs
Engine type/speed	5.4 HP @ 3600 rpm
Fuel tank capacity (petrol)	3.5 L
Lubrication oil capacity/grade	1Litre (SAE 15W40 or SAE10W30) based on temperature
Sound Pressure Level	89.64 dB LpA
Sound Power Level	103.3 dB LWA
Guaranteed sound power level	106 dB LWA
Uncertainty Factor (K)	2.5 dB

TROUBLESHOOTING

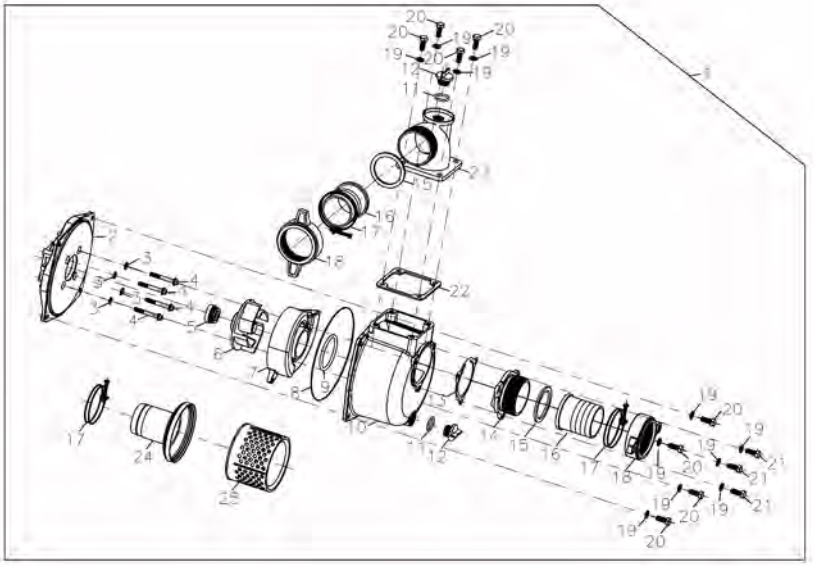
PROBLEM	CAUSE	SOLUTION
The engine does not start.	No fuel in tank.	Add fuel.
	Fuel valve is set to OFF,	Set the fuel valve to ON,
The engine stops and will not restart.	No fuel in tank.	Add fuel to the tank.
The pump fails to prime.	Priming chamber not filled correctly.	Fill priming chamber leaving no air gap.
	Air leaking due to damaged hose, broken hose clamps, split/ill-fitting gasket.	Repair as necessary.
	Blocked inlet hose.	Clean strainer and make sure that it is not submerged in mud or sediment. Make sure that there are no kinks in the delivery hose.
	Damaged impeller.	Disassemble the pump and replace the impeller.
	Air leaking through damaged seal.	Replace seal.
Low output from pump.	The impellor is clogged.	Clean strainer and make sure that it is not submerged in mud or sediment.
	Pickup or delivery hose obstructed.	Clear obstruction and make sure that there are no kinks in hose.
	Suction lift too high.	Set the pump nearer to the water level.
	Congested material inside pump.	Disassemble the pump and clean out.
	Damaged impeller.	Disassemble the pump and replace the impeller.

If you cannot correct the fault, speak to your local dealer or the Clarke International service department.

EXPLODED DIAGRAMS AND PARTS LIST

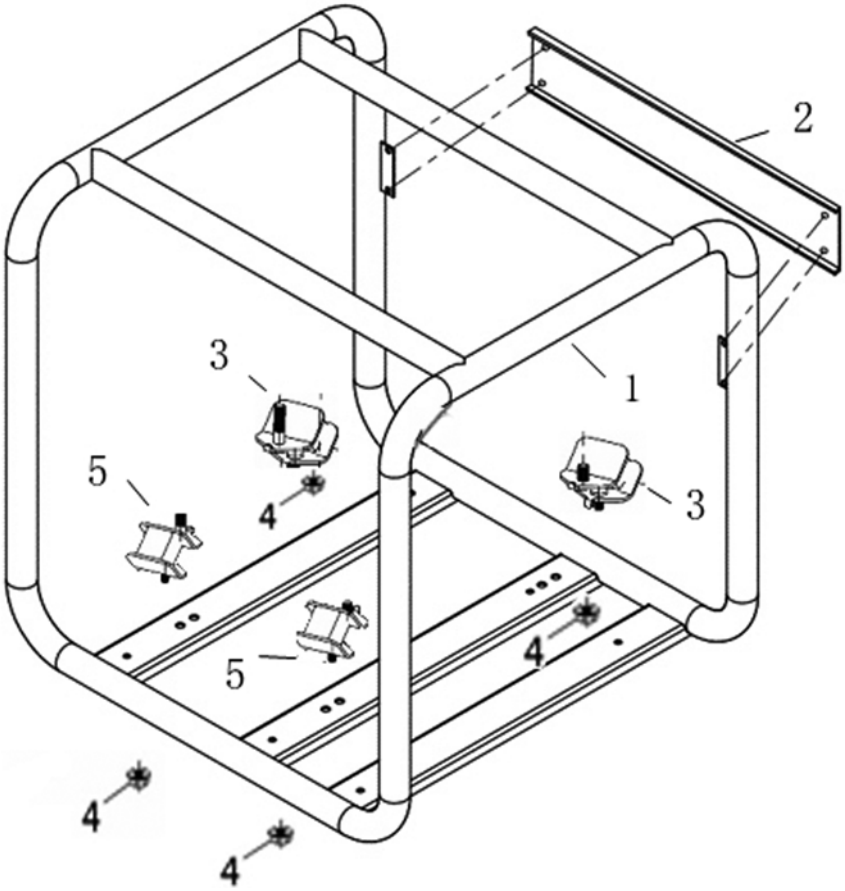
A full set of parts list and diagrams are available from the Clarke International service department.

PUMP



NO	DESCRIPTION	PART NUMBER		NO	DESCRIPTION	PART NUMBER
1	PUMP COMPLETE	ZGDW75K01		14	FLANGE	ZGDW75K14
2	PUMP COVER	ZGDW75K02		15	LINK SEAL	ZGDW75K15
3	WASHER	ZGDW75K03		16	TUBE TIE-IN	ZGDW75K16
4	FLANGE BOLT	ZGDW75K04		17	TUBE LOOP	ZGDW75K17
5	MACHINERY SEAL	ZGDW75K05		18	TUBE LINK	ZGDW75K18
6	WATER PUMP IMPELLER	ZGDW75K06		19	FLAT WASHER	ZGDW75K19
7	VOLUTE CASING	ZGDW75K07		20	FLANGE BOLT	ZGDW75K20
8	O-RING	ZGDW75K08		21	FLANGE BOLT	ZGDW75K21
9	O-RING	ZGDW75K09		22	OUTPUT SEAL	ZGDW75K22
10	HOUSING OF PUMP	ZGDW75K10		23	OUTPUT FLANGE	ZGDW75K23
11	O-RING	ZGDW75K11		24	FILTER COVER	ZGDW75K24
12	PLUG	ZGDW75K12		25	FILTER	ZGDW75K25
13	CHECK VALVE	ZGDW75K13				

FRAME



NUMBER	DESCRIPTION	PART NUMBER
1	FRAME COMPLETE	ZGDW75L01
2	DECORATIVE FRAME	ZGDW75L02
3	RIGHT BOTTOM RUBBER,L=15	ZGDW75L03
4	FLANGE NUT	ZGDW75L04
5	RIGHT BOTTOM RUBBER	ZGDW75L05

DECLARATION OF CONFORMITY

CE

Clarke® INTERNATIONAL

Hemnall Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

Product Description:	3inch Water Pump (Diesel Powered)
Model number(s):	DW75
Serial / batch Number:	N/A
Date of Issue:	12/09/2017
(Noise Conformity)	
Notified Body:	Ente Certificazione Macchine Srl Via Ca' Bella, 243 Loc . Castello di Serravalle 40053 Valsamoggia (BO) Italy
Technical Documentation Holder:	A.R. Pond Clarke International 2a Shrubland Road London E10 7RB UK
Conformity Assessment Procedure:	to 2000/14/EC Annex VI
Manufacturer:	Clarke International
Noise Related Value:	4.0 kW
Measured Sound Power Level:	103 dB
Guaranteed Sound Power Level:	106 dB

16-0559 3inch Diesel Water pump DOC(rv0) Page 1 of 2

DECLARATION OF CONFORMITY

CE

Clarke® INTERNATIONAL

Hemnall Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2006/42/EC *Machinery Directive.*

2000/14/EC *Noise Emissions Directive, (amended by 2005/88/EC).*

The following standards have been applied to the product(s):

EN 809:1998+A1:2009+AC:2010, EN ISO 12100:2010.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2017

Signed:

J.A. Clarke

Director

16-0559 3inch Diesel Water pump DOC(rv0)

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