

Clarke®

PUMP



PETROL DRIVEN WATER PUMP

Model Nos: PW2 & PW3

PART NOS: 7140640 & 7140645

OPERATING & MAINTENANCE INSTRUCTIONS



INTRODUCTION

Thank you for purchasing this CLARKE Petrol Driven Water Pump.

Before attempting to use the machine, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the pump giving you long and satisfactory service.

GUARANTEE

This product 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 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.

ENVIRONMENTAL PROTECTION



At the end of its working life, do not dispose of this product or its components with general household waste. Any tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately.

Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

EQUIPMENT SUPPLIED

1 x Water Pump Assembly	2 x Hose Adaptor (2" or 3")
2 x Hose Adaptor Clamp (2" or 3")	2 x Hose Adaptor Gasket (2" or 3")
1 x Two-Piece Inlet Filter Assembly	3 x Hose Clamp
1 x Spark Plug Box Spanner	1 x Tommy Bar
1 x Instruction Manual	

GENERAL SAFETY RULES

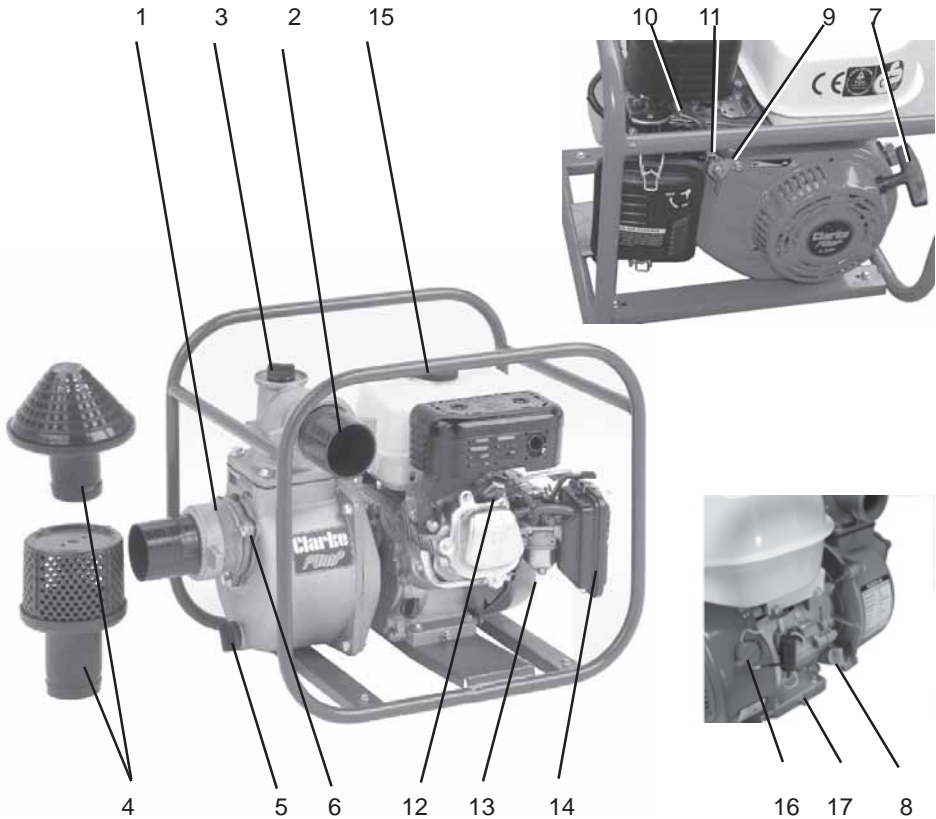


As with all machinery, there are certain hazards involved with its operation and use. Exercising caution will reduce the risk of personal injury.

1. **ALWAYS** observe all safety precautions for the handling of fuel.
2. **ALWAYS** thoroughly familiarise yourself with this unit & its operation, and follow all instructions in this manual.
3. **ALWAYS** ensure that the pump is properly positioned where necessary to prevent it from moving during operation, and that the immediate area surrounding the pump is kept clear.
4. **ALWAYS** ensure the unit cannot be started inadvertently by using the ON/OFF switch whenever carrying out maintenance or making adjustments.
5. **ALWAYS** use the strainer connected to the suction hose, to prevent stones and other solids from being drawn up, which could cause severe damage to the pump.
6. **ALWAYS** keep the machine itself dry and well clear of water discharge
7. **ALWAYS** use only replacement parts supplied by the manufacturer. The use of non-standard parts could be hazardous.
8. **ALWAYS** use at least 1ft (300mm) of flexible hose to make plumbing connections to the pump. Rigid piping may put stress on the pump, causing damage. If rigid piping must be used, it should be supported so as to eliminate stress on the pump.
9. **NEVER** refuel the engine whilst it is running, and allow the engine to cool sufficiently before refuelling.
10. **NEVER** use for pumping petrol (or other flammable liquids), or corrosive chemicals. These pumps are designed to pump **WATER ONLY**.
11. **NEVER** operate an engine driven unit in an explosive atmosphere, near combustible materials, or where there is insufficient ventilation.
12. **NEVER** allow children to use this machine.
13. **NEVER** run the pump dry. Always fill the pump with water before starting.
14. **NEVER** attempt any major repairs to this machine unless you are properly qualified.
15. **NEVER** direct the discharge flow towards another person.
16. **NEVER** over-tighten drain or filler plugs. Excessive force may damage the threads or the pump body.
17. **NEVER** direct the water discharge towards electrical wiring or equipment.

OVERVIEW

These petrol driven pumps are designed for pumping water, or water containing small solids in suspension. The pumps are fitted with an open impeller. The suction strainer supplied, must always be used, to ensure that large stones or other objects cannot be drawn up, as this would cause severe damage to the pump. The images show a PW3 pump although PW2 pumps are similar.



- | | |
|-------------------------------|---------------------------|
| 1. Inlet or Suction Chamber | 10 Choke Lever |
| 2. Output or Discharge Pipe | 11 Throttle Lever |
| 3. Water Filler Plug | 12 Spark Plug |
| 4. Inlet Strainer | 13 Carburettor Drain Plug |
| 5. Suction Chamber Drain Plug | 14 Air Filter Housing |
| 6. Suction Chamber Bolt | 15 Fuel Filler Cap |
| 7. Starter Recoil | 16 ON/OFF Switch |
| 8. Oil Filler and Dipstick | 17 Oil Drain Plug |
| 9. Fuel Shut-off Valve (cock) | |

BEFORE USE

REMEMBER: Contaminated water is water containing small solids in suspension, NOT slurry, sludge, sand, or mud.

Place the pump on a firm foundation and as near to the water source as possible.

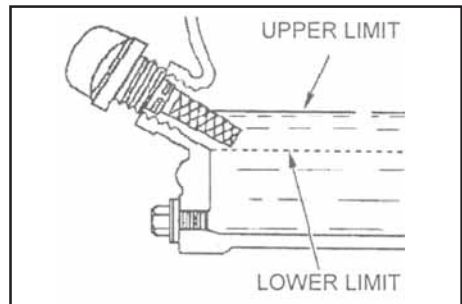
Ensure there is adequate drainage for the discharged water, and that there is no danger of damage to property as a result of the pumping operation.

ADDING OIL

This pump is not supplied with engine oil or fuel. Use any engine oil of SAE 10-30 rating unless operating at very high or low ambient temperatures.

Fill the engine crankcase with oil as follows;

1. Remove the filler plug/dipstick.
2. Fill the unit with oil until visible inside.
3. Check the level by inserting the dipstick back into the filler tube and checking the level is within the indicated range. If correct replace the dipstick/filler cap.



NOTE: The unit is fitted with a low oil sensor which will stop the engine if the oil level drops below the safe level to avoid internal damage. Refer to troubleshooting section.

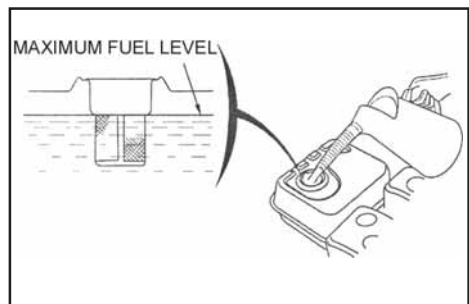


**WARNING: WIPE UP ANY SPILT FUEL BEFORE RUNNING THE PUMP.
ALLOW THE ENGINE TO COOL DOWN BEFORE REFUELLING**

ADDING FUEL

Fill the fuel tank with unleaded petrol or check the level by opening the fuel cap and topping up as required. Located within the fuel tank is a strainer. Check this filter periodically and remove any contaminants which may have accumulated. Do not fill above the fuel strainer shoulder. After refuelling, tighten the fuel filler cap securely.

Use unleaded petrol with a pump octane rating of 86 or higher.



GENERAL USE OF THE PUMP

1. Connect the suction and discharge hoses to the pump housing using the hose clamps and gaskets supplied to achieve an airtight seal. There must be no damage of any kind to the hoses which must be well protected and supported.

NOTE: Hoses or pipes should be supported independently and not carried by the pump.

IMPORTANT: An air leak in the suction line will prevent priming, and reduce the capacity of the pump.

2. Pay particular attention to the following:
 - a. Always ensure the hose adaptor gasket is in place, and correctly fitted.
 - b. Always use a flexible hose at the pump body connection, of at least 1ft (300mm).
 - c. Keep all pipes/hoses as short and straight as possible, and avoid sharp bends.
 - d. If a flexible hose must be laid across a roadway, protect it with planking.
 - e. Ensure there is adequate drainage for the discharged water.

(Instantaneous shut off pressure, applied when a vehicle runs across an unprotected hose, will cause "hydraulic shock", which can damage the pump and/or the hose).

3. Attach the suction strainer to the end of suction hose using a further hose clamp, to prevent large stones etc, from being drawn up which could cause severe damage. Keep the strainer clean. If it is likely to clog with dirt or debris, proceed by either:
 - a. Preparing a bed of stones on which to rest the strainer.
 - b. Tying the strainer so that it stays off the bottom of the pit, pond or excavation.
 - c. Tie the strainer inside a basket or bucket.
4. Remove the filler plug on top of the pump case and prime the pump with water, leaving no air gap. Remember the pump is self-priming only when the pump is filled. It will prime and re-prime itself without refilling. Refilling is necessary only if the pump has been drained or if the water has been lost. Never allow the pump to run dry.
5. If the discharge line runs vertically more than 30ft it is advisable to install a check valve in the discharge line near the pump to stop destructive water hammer when the pump is shut down. If a check valve is installed, it may also be necessary to vent the top of the pump so that air can be expelled during automatic re-priming. This air bleed may be accomplished by providing a 1/4" line from the top of the pump back to the liquid source. We will not assume any responsibility for damage to the pump if no check valve is used in the discharge line.

Properly fuelled and lubricated your pump will run without attention.

OPERATION (REFER TO THE ILLUSTRATION ON PAGE 4)



WARNING: WHEN THE ENGINE IS RUNNING, THE EXHAUST MUFFLER IS VERY HOT, TAKE CARE TO AVOID BURNS.
WARNING: NEVER RUN THE ENGINE IN AN ENCLOSED SPACE - ENSURE THERE IS ADEQUATE VENTILATION.

Ensure the site and pump is prepared as detailed on page 6, then proceed as follows:

PRIMING & CONTROL

1. With the fuel cock open, pull the starter recoil rope slowly two or three times, to allow fuel to reach the carburettor.
2. To start a cold engine, set the choke lever to the closed position, but if the engine is already warm, the choke should be in the open position.
3. Set the throttle about one third open. Turn the engine switch to ON.
4. Pull the starter recoil rope firmly until the engine starts. Do not snatch at the starter rope and allow it to retract slowly after each pull.
5. Once the engine starts, gradually return the choke to the open position as the engine warms up and use the engine throttle to gradually increase engine speed.

STARTING

After starting the engine, move the throttle to the open position for priming of the pump and checking for pump output. Output is controlled by adjusting the engine speed.

NOTE: With a suction lift of 5 to 10ft, the pump should begin discharging liquid in less than a minute. A lift of 25ft (at sea level) should require not more than 2 minutes for initial prime. To further reduce priming time the engine speed may be increased, after the engine is properly run in. If pumping does not start within this time, shut off engine and check carefully to find the problem. (See TROUBLESHOOTING on page 9).

NOTE: Filling the suction pipe with water will speed up the priming process, and it is recommended that a non-return valve be fitted to the end of the suction pipe.

On higher vertical lifts, a higher engine speed is necessary but on shallow lifts or when there is little water to pump, preserve fuel and engine wear by reducing engine speed.

In the event of blockages, where debris has entered the suction chamber, the suction chamber can be opened and cleaned out by removing the bolts shown in the layout on page 4.

SHUTTING DOWN

1. Gradually reduce engine speed to minimum using the throttle lever.
2. Stop the engine by switching OFF the ignition switch.
3. Close the fuel cock.

MAINTENANCE

1. Always maintain the pump in a clean condition, checking regularly for loose bolts etc.
2. Clean the air filter once every 50 hours of use (or more often in unusually dusty conditions) as follows. Clean the foam filter element with domestic detergents and clean the mesh element by knocking against a solid object or blow out any dust with a high pressure air jet. Never operate the pump without the air cleaner installed as this would cause premature wear to the engine.
3. Replace the spark plug after the first month or every 50 hours of use. Check when installing that the spark plug has the correct clearance by measuring with a feeler gauge and adjusting the side electrode as required. Clearance should be 0.70-0.80mm. The recommended spark plug for both the PW2 and PW3 pump is RK34200/168F.

CHANGING THE OIL

The oil in the engine should be changed after the first 20 hours use and thereafter every 6 months or 100 running hours. Remove the dipstick and drain plug and then drain the oil. Re-fill and check the level as described on page 5.

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

ENVIRONMENTAL PROTECTION

One of the most damaging sources of pollution is oil. Do not throw away used oil with domestic refuse or flush down a sink or drain. Collect old oil in a leak-proof container and take it to your local waste disposal site.

STORAGE & HANDLING

After use, drain the pump body whenever there is danger of freezing, and if the pump has been used with contaminated or salty water, It should be thoroughly flushed with clean water following use, both inside and out and drained before replacing the drain plug. Always transport the pump with the fuel cock turned off and keep the unit level to prevent any fuel from spilling.

If the pump is not to be used for some time, it should be flushed thoroughly with clean water, and drained completely before storing in a clean dry environment. Additionally, it should be prepared as follows:

1. Drain the fuel tank and carburettor completely by opening the drain plug in the carburettor float chamber and draining all remaining fuel into a suitable container ensuring the fuel shut-off valve is open.
2. Remove the spark plug, and pour 2-3 teaspoons of light oil into the cylinder through the spark plug hole.
3. Pull the starter recoil rope slowly 2 or 3 times so that the oil is deposited on the cylinder walls and replace the spark plug. For longer term storage, use the starter to turn the engine until the triangle mark on the starter wheel lines up with the starter screw hole. In this location both the inlet and exhaust valves are closed which may prevent the engine from suffering internal corrosion during storage.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Engine fails to start	Lack of fuel in tank.	Fill tank as necessary.
	No fuel reaching carburetor.	Fuel cock isolated. Turn on fuel shut-off valve.
	Engine switch is in the OFF position.	Set engine switch to the ON position.
	Lack of spark at the spark plug.	Check that spark plug wire is securely attached to plug head. With switch in ON position, hold spark plug side electrode against engine and pull starter cord to observe spark. If spark present but engine still cannot start consult your dealer for help.
Engine stops and will not restart	Lack of oil in engine causing 'Low Oil Protection' sensor to stop engine from running.	Fill oil reservoir as necessary.
Pump fails to prime	Priming chamber not filled correctly.	Fill priming chamber leaving no air gap.
	Air leaks through the suction line joints (damaged hose, broken hose clamps, broken / ill-fitting gasket).	Carry out repairs as necessary/check, repair connections as required.
	Blocked inlet hose.	Clean strainer & ensure it is not submerged in mud or sediment etc. Ensure there are no kinks in delivery hose.
	Engine speed too low.	Increase engine speed.
	Damaged impeller.	Renew impeller after dismantling pump.
	Air leaks through damaged seal.	Renew seal.

PROBLEM	CAUSE	SOLUTION
Low output from pump	Engine speed too low	Increase engine speed.
	Impeller clogged	Clean strainer and ensure it is not submerged in mud or sediment etc.
	Suction or delivery line obstructed	Remove obstruction and ensure there are no kinks in delivery line.
	High friction losses in the suction line	Avoid un-necessary curves, restrictions or valves.
	Suction lift too high	Set pump as close as possible to the level of the liquid to be pumped.
	Congested material inside pump	Dismantle pump & clean out.
	Damaged impeller	Dismantle pump and renew impeller.

PARTS AND SERVICING

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

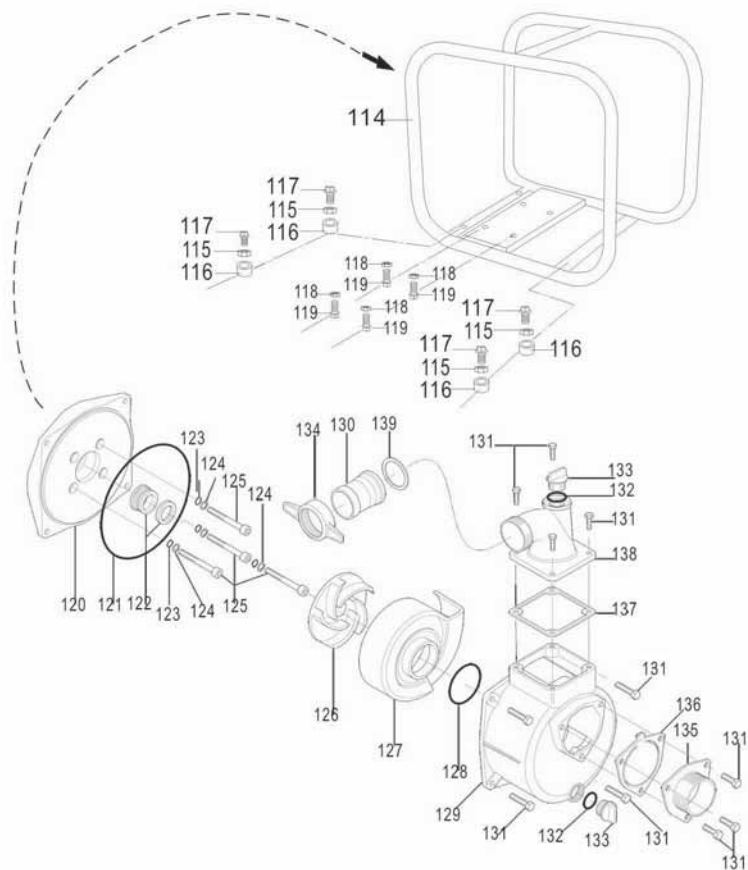
SERVICE: Service@clarkeinternational.com

SPECIFICATIONS

Model	PW2	PW3
Engine		
Engine model	168F	168F-2A
Engine type	4-stroke OHV single cylinder with forced air cooling	4-stroke OHV single cylinder with forced air cooling
Motor HP	6.5HP (4.0kw)	6.5HP (4.0kw)
Rotational velocity	3600rpm	3600rpm
Fuel tank capacity	3.6L	3.6L
Oil capacity	0.6L	0.6L
Performance data		
Outlet size	2"	3"
Max water flow	416L/m (25m ³ /h)	800L/m (48m ³ /h)
Max head	26M	30M
Max Suction	7.5 M	7.5 M
Guaranteed sound power level LWA dB	106	108
Dimensions (overall)		
Length (mm)	500	525
Width (mm)	395	395
Height (mm)	380	440
Weight	27kg	29kg

PUMP PARTS DIAGRAM

MODEL - PW2

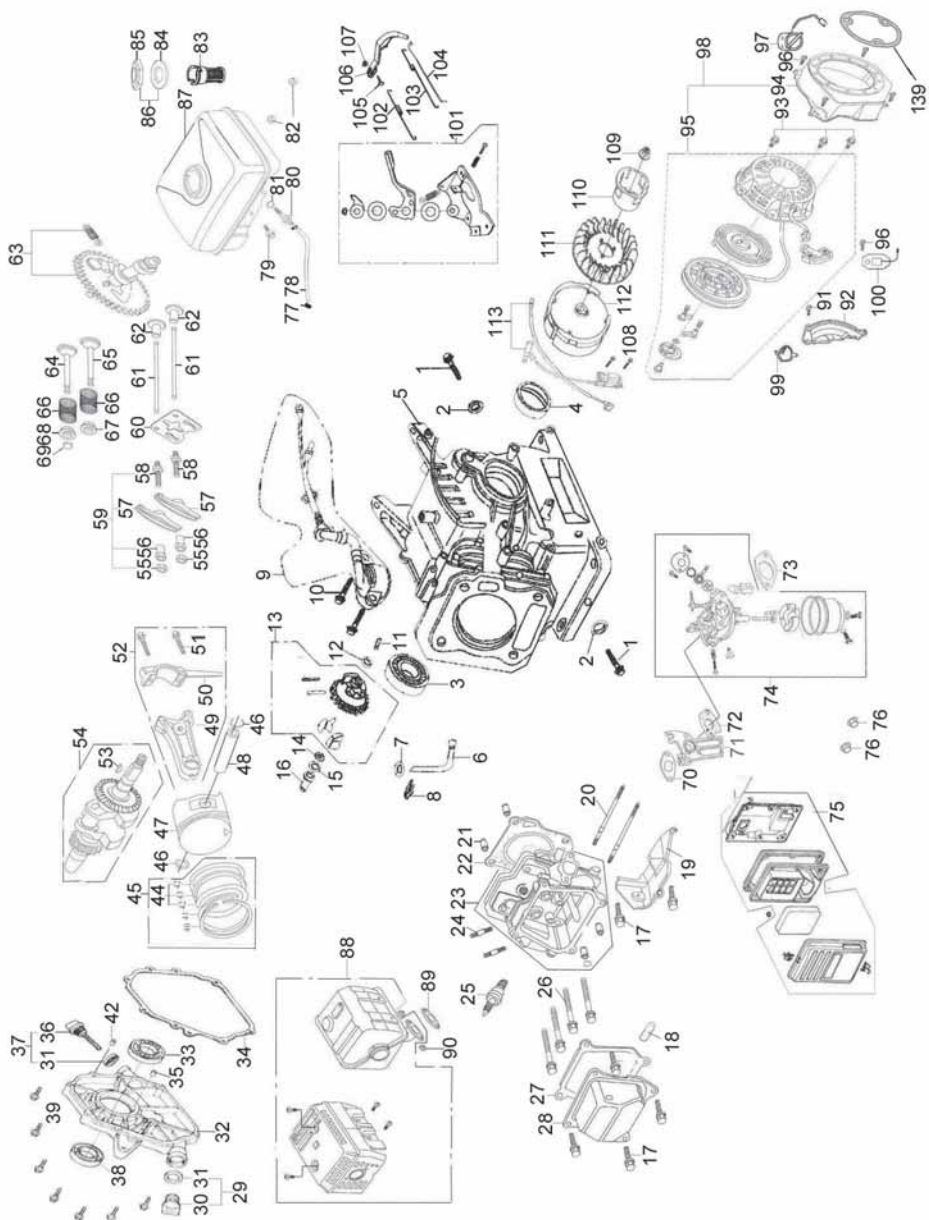


PUMP PARTS LIST

Model - PW2

ItemPart	Description
114 RK41100	23" Frame sub-assy.
115 GB/T923-88	Nut M6
116 RK41310	Rubber
117 GB/T5787	Bolt, M6x12
118 GB/T6170	Nut, M8
119 GB/T5787	Bolt, M8x32
120 RK44112	Housing, rear
121 RK44121	O-ring
122 RK44230	Seal, mechanical
123 RK44121	O-ring
124 RK44122	Washer, copper
125 GB5787-86	Bolt, allen headed
126 RK44211	Impeller
127 RK44212	Cover, Impeller
128 RK44221	O-Ring
129 RK44111	Housing, Front
130 RK44412	Pipe, 2"
131 GB5787-86	Bolt, Hex
132 RK44142	O-Ring
133 RK44141	Plug, Drain
134 RK44413	Union, hose 2"
135 RK44511	Flange, Inlet 2"
136 RK44521	Gasket, Inlet Flange
137 RK44321	Gasket, Outlet Flange
138 RK44311	Flange, Outlet 2"
139 RK44411	Gasket, 2"

ENGINE PARTS DIAGRAM-MODEL PW2

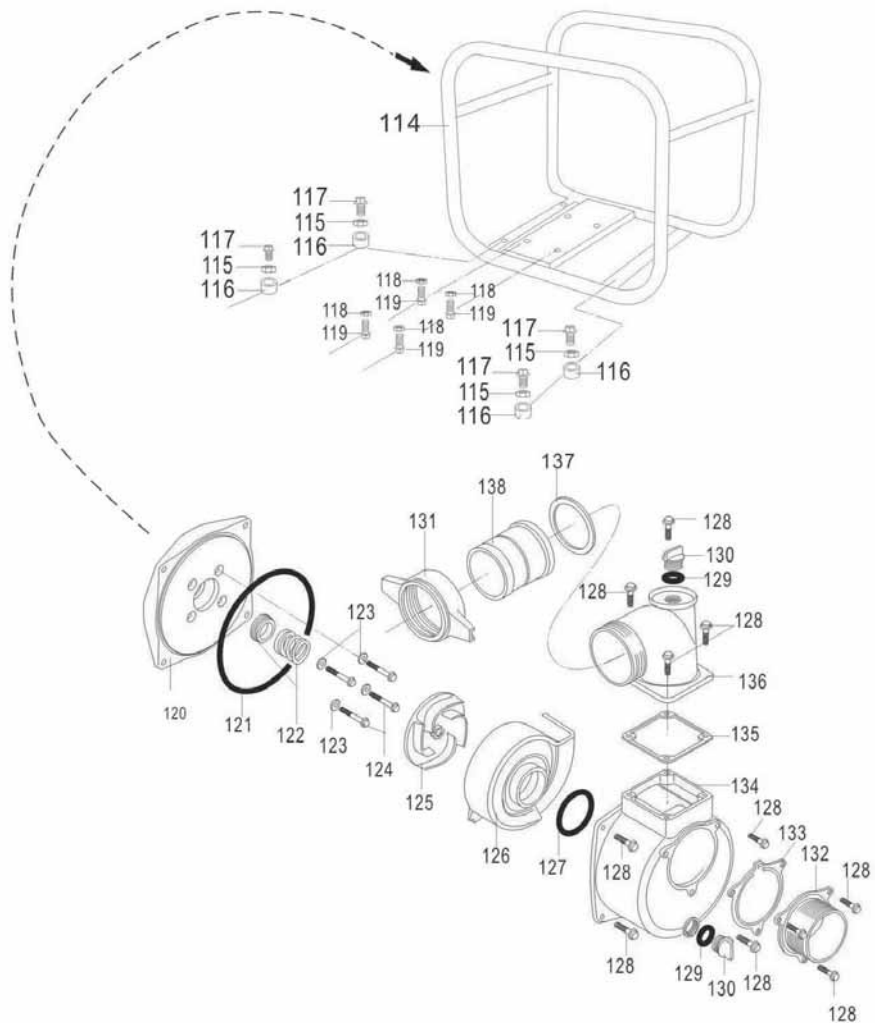


PARTS LIST-MODEL PW2 ENGINE

Item	Part	Description	Item	Part	Description
1	RK11212	Oil drain plug	65	RK14711/168F	Intake valve
2	RK11213	Washer	66	RK14755/168F	Valve spring
3	GB276-89	Bearing 6205	67	RK14751/168F	Intake valve spring seat
4	RK13180	Crankshaft oil seal	68	RK14757/168F	Exhaust valve spring seat
5	RK11100	Crankcase	69	RK14758/168F	Cap
6	RK26311	Regulating sway bar	70	RK12254/168F	Inlet gasket
7	RK26329	Washer	71	RK16141/168F	Connecting block
8	RK26321	Split pin	72	RK16142/168F	Carburetor gasket
9	RK37810	Oil Sensor	73	RK17330/168F	Air cleaner gasket
10	GB5787-86	M6 x 14 bolt	74	RK16100	Carburetor assy
11	RK25151	Regulating shaft	75	RK17100/168F	Air cleaner
12	RK25165	Washer	76	GB6177-86	M6 nut
13	RK25120	Regulator gear assy	77	RK16937/168F	Pipe clamp
14	RK25164	Snap ring	78	RK16931/168F	Outlet pipe
15	RK25132	Washer	79	GB5787-86	M6 x 22 bolt
16	RK25131	Sleeve	80	RK16950/168F	Connector
17	GB5787-86	M6 x 12 bolt (6 off)	81	RK16961/168F	Packing ring
18	RK20651	Air duct	82	GB6177-86	M6 nut
19	RK19721	Wind cover	83	RK16916/168F	Filter cup
20	RK12252	M6 x 113 bolt	84	RK16521/168F	Packing ring
21	RK12218/168F	Set pin 10 x 16	85	RK16510/168F	Fuel cap 86
22	RK12220	Cylinder head gasket	86	RK16500/168F	Fuel cap with assy
23	RK12210	Cylinder head assy	87	RK16610/168F	Fuel tank
24	RK12253/168F	M8x34 bolt	88	RK18000/168F	Exhaust muffler
25	RK34200/168F	Spark plug	89	RK12255/168F	Exhaust gasket
26	RK12256/168F	Bolt	90	GB6177-86	M6 nut
27	RK12312/168F	Cylinder head cover gasket	91	GB5787-86	M6 x 22 bolt
28	RK12310/168F	Cylinder head cover assy	92	RK19810/168F	1 Crankcase side plate assy
29	RK15650/168F	Oil plug assy	93	GB577-86	M6x8 bolt
30	RK15651/168F	Oil plug	94	RK19710/168F	Fan hood assy
31	RK15612/168F	Seal	95	RK27300/168F	Recoil starter
32	RK11311/168F	Crankcase cover	96	GB5787-86	M6x12 bolt
33	GB276-89	Bearing 6205	97	RK35410/168F	Engine switch
34	RK11119/168F	Crankcase gasket	98	RK27100/168F	Recoil starter assy
35	RK11118/168F	Set pin	99	RK32211/168F	Plastic clip
36	RK15611/168F	Oil dipstick	100	RK37850/168F	Diode
37	RK15610/168F	Oil dipstick assy	101	RK26410/168F	Regulating frame assy
38	RK13180/168F	Crankshaft oil seal	102	RK26363/168F	Back spring
39	GB5787-86	M8 x 32 bolt	103	RK26364/168F	Regulating spring
40	RK13311/168F	Piston ring (!)	104	RK26341/168F	Pulling rod
41	RK13312/168F	Piston ring (a!)	105	RK26362/168F	Lock bolt
42	RK13322/168F	Side rail	106	RK26331/168F	Regulating arm
43	RK13321/168F	Expander	107	GB6177-86	M6 nut
44	RK13320/168F	Scraper ring set	108	GB5787-86	M6 x 25 screw
45	RK13300/168F	Piston ring assy	109	RK27515/168F	M14 x 1.5 nut
46	RK13222/168F	Piston pin clip	110	RK27370/168F	Starting flange
47	RK13211	Piston	111	RK19722/168F	Flywheel fan
48	RK13221/168F	Piston pin	112	RK27500/168F	Flywheel
49	RK13131/168F	Shank	113	RK34500/168F	Ignition coil assy
50	RK13132/168F	Connecting rod cover	140	RK19216/168F	Ring Spacer Assembly
51	RK13133/168F	Bolt			
52	RK13130/168F	Connecting rod assy			
53	RK13118/168F	Woodruff key			
54	RK13110	Crankshaft assy			
55	RK14416/168F	Lock nut			
56	RK14413/168F	Sleeve			
57	RK14411/168F	Valve rocker			
58	RK14415/168F	Adjusting bolt for valve gap			
59	RK14410/168F	Valve rocker assy			
60	RK14261/168F	Pusher guide			
61	RK14250/168F	Pusher			
62	RK14455	Tappet			
63	RK14100	Camshaft assy			
64	RK14721/168F	Exhaust valve			

PUMP PARTS DIAGRAM

MODEL - PW3

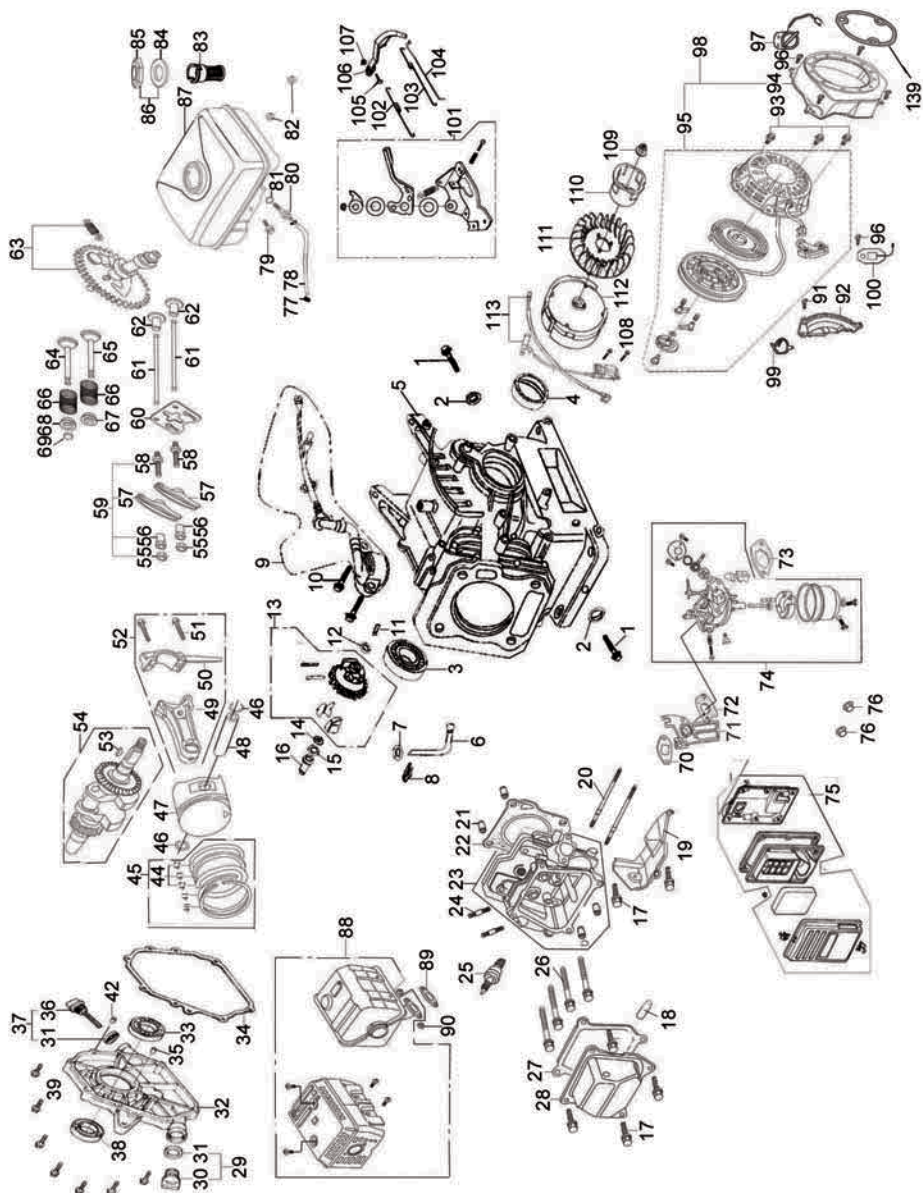


PARTS LIST - MODEL PW3 PUMP

MODEL - PW3

Item	Part	Description
114	RK41100	23" Frame sub-assy.
115	GB/T923-88	Nut M6
116	RK41310	Rubber
117	GB/T5787	Bolt, M6 x 12
118	GB/T6170	Nut, M8
119	GB/T5787	Bolt, M8 x 32
120	RK44112	Housing, rear
121	RK44121	O-ring
122	RK44230	Seal, mechanical
123	RK44122	Washer, copper
124	GB5787-86	Bolt, allen headed
125	RK44211	Impeller
126	RK44212	Cover, Impeller
127	RK44221	O-Ring
128	GB5787-86	Bolt, Hex
129	RK44142	O-Ring
130	RK44141	Plug, Drain
131	RK44413	Union, hose 3"
132	RK44511	Flange, Inlet 3"
133	RK44521	Gasket, Inlet Flange
134	RK44111	Housing, Front
135	RK44321	Gasket, Outlet Flange
136	RK44311	Flange, Outlet 3"
137	RK44411	Gasket, 3"
138	RK44412	Pipe, 3"

PARTS DIAGRAM - PW3 ENGINE



PARTS LIST- MODEL PW3 ENGINE

ItemPart	Description	ItemPart	Description		
1	RK11212/168F	Oil drain plug	58	RK14415/168F	Adj bolt for valve gap
2	RK11213/168F	Washer	59	RK14410/168F	Valve rocker assy
3	GB276-89	Bearing 6205	60	RK14261/168F	Pusher guide
4	RK13180/168F	Crankshaft oil seal	61	RK14250/168F	Pusher
5	RK11100	Crankcase	62	RK14455	Tappet
6	RK26311/168F	Regulating sway bar	63	RK14100	Camshaft assy
7	RK26329/168F	Washer	64	RK14721/168F	Exhaust valve
8	RK26321/168F	Split pin	65	RK14711/168F	Intake valve
9	RK37810/168F	Oil sensor	66	RK14755/168F	Valve spring
10	GB5787-86	M6 x 14 bolt	67	RK14751/168F	Intake valve spring seat
11	RK25151/168F	Regulating shaft	68	RK14757/168F	Exhaust valve spring seat
12	RK25165/168F	Washer	69	RK14758/168F	Cap
13	RK25120/168F	Regulator gear assy	70	RK12254/168F	Inlet gasket
14	RK25164/168F	Snap ring	71	RK16141/168F	Connecting block
15	RK25132/168F	Washer	72	RK16142/168F	Carburetor gasket
16	RK25131/168F	Sleeve	73	RK17330/168F	Air cleaner gasket
17	GB5787-86	M6 x 12 bolt	74	RK16100	Carburetor assy
18	RK20651/168F	Air duct	75	RK17100/168F	Air cleaner
19	RK19721/168F	Wind cover	76	GB6177-86	M6 nut
20	RK12252/168F	M6 x 113 bolt	77	RK16937/168F	Pipe clamp
21	RK12218/168F	Set pin 10 x 16	78	RK16931/168F	Outlet pipe
22	RK12220	Cylinder head gasket	79	GB5787-86	M6 x 22 bolt
23	RK12210	Cylinder head assy	80	RK16950/168F	Connector
24	RK12253/168F	M8 x 34 bolt	81	RK16961/168F	Packing ring
25	RK34200/168F	Spark plug	82	GB6177-86	M6 nut
26	RK12256/168F	Spark plug	83	RK16916/168F	Filter cup
27	RK12312/168F	Cylinder head cover gasket	84	RK16521/168F	Packing ring
28	RK12310/168F	Cylinder head cover assy	85	RK16510/168F	Fuel cap
29	RK15650/168F	Oil plug assembly	86	RK16500/168F	Fuel cap with assy
30	RK15651/168F	Oil plug	87	RK16610/168F	Fuel tank
31	RK15612/168F	Seal	88	RK18000/168F	Exhaust muffler
32	RK11311/168F	Crankcase cover	89	RK12255/168F	Exhaust gasket
33	GB276-89	Bearing 6205	90	GB6177-86	M6 nut
34	RK11119/168F	Crankcase gasket	91	GB5787-86	M6 x 22 bolt
35	RK11118/168F	Set pin	92	RK19810/168F	Crankcase sideplate assy
36	RK15611/168F	Oil dipstick	93	GB5787-86	M6x8 bolt
37	RK15610/168F	Oil dipstick assy	94	RK19710/168F	Fan hood assy
38	RK13180/168F	Crankshaft oil seal	95	RK27300/168F	Recoil starter
39	GB5787-86	M8 x 32 bolt	96	GB5787-86	M6x12 bolt
40	RK13311/168F	Piston ring (!)	97	RK35410/168F	Engine switch
41	RK13312/168F	Piston ring (a!)	98	RK27100/168F	Recoil starter assy
42	RK13322/168F	Side rail	99	RK32211/168F	Plastic clip
43	RK13321/168F	Expander	100	RK37850/168F	Diode
44	RK13320/168F	Scraper ring set	101	RK26410/168F	Regulating frame assy
45	RK13300/168F	Piston ring assy	102	RK26363/168F	Back spring
46	RK13222/168F	Piston pin clip	103	RK26364/168F	Regulating spring
47	RK13211	Piston	104	RK26341/168F	Pulling rod
48	RK13221/168F	Piston pin	105	RK26362/168F	Lock bolt
49	RK13131/168F	Shank	106	RK26331/168F	Regulating arm
50	RK13132/168F	Connecting rod cover	107	GB6177-86	M6 nut
51	RK13133/168F	Bolt	108	GB5787-86	M6 x 25 screw
52	RK13130/168F	Connecting rod assy	109	RK27515/168F	M14 x 1.5 nut
53	RK13118/168F	Woodruff key	110	RK27370/168F	Starting flange
54	RK13110	Crankshaft assy	111	RK19722/168F	Flywheel fan
55	RK14416/168F	Lock nut	112	RK27500/168F	Flywheel
56	RK14413/168F	Sleeve	113	RK34500/168F	Ignition coil assy
57	RK14411/168F	Valve rocker	139	RK19216/168F	Ring Spacer Assembly

DECLARATION OF CONFORMITY - PW2



Clarke[®]
INTERNATIONAL

Hemnoll Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

Product Description: 2 inch Water Pump (Petrol Powered)
Model number(s): PW2
Serial / batch Number: N/A
Date of Issue: 26/02/2010
(Noise Conformity)
Notified Body: Societe Nationale De Certification ETD
Homologation S.A.R.L (SNCH)
11 Rout De Sandweiler
5230 Sandweiler
Luxembourg

Technical Documentation Holder: Alan 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: 3.0kW
Measured Sound Power Level: 105dB
Guaranteed Sound Power Level: 107dB

DECLARATION OF CONFORMITY - PW2



Clarke[®]
INTERNATIONAL

Hemnal 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):

- 2004/108/EC *Electromagnetic Compatibility Directive.*
- 2006/42/EC *Machinery Directive.*
- 2000/14/EC *Noise Emissions Directive (amended by 2005/88/EC).*
- 97/68/EC *Emission of Gaseous Particulates (amended by 2004/26/EC)*

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

EN 55012:2002+A1, EN 61000-6-1:2001, EN 809:1998

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: 2006

Signed:


J.A. Clarke
Director

DECLARATION OF CONFORMITY - PW3



Clarke[®]
INTERNATIONAL

Hornhill Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

Product Description: 3 inch Water Pump (Petrol Powered)
Model number(s): PW3
Serial / batch Number: N/A
Date of Issue: 12/02/2010
(Noise Conformity)
Notified Body: Societe Nationale De Certification ETD
Homologation S.A.R.L (SNCH)
11 Rout De Sandweiler
5230 Sandweiler
Luxembourg

Technical Documentation Holder: Alan 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: 3.6 kW
Measured Sound Power Level: 107dB
Guaranteed Sound Power Level: 108dB

DECLARATION OF CONFORMITY - PW3



Clarke[®]
INTERNATIONAL

Hemnal 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):

- 2004/108/EC *Electromagnetic Compatibility Directive.*
- 2006/42/EC *Machinery Directive.*
- 2000/14/EC *Noise Emissions Directive (amended by 2005/88/EC).*
- 97/68/EC *Emission of Gaseous Particulates (amended by 2004/26/EC)*

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

EN 55012:2002+A1, EN 61000-6-1:2001, EN 809:1998.

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: 2006

Signed:


J.A. Clarke
Director

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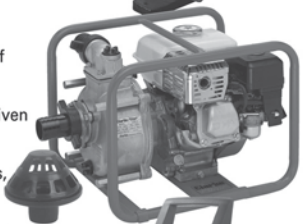
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