

# **DOLPHIN FIRE FIGHTER PUMP**



**SINGLE IMPELLER**

## **DOLPHIN**

### **ENGINE DRIVEN PUMP OPERATING INSTRUCTION:**

Suction and discharge pipes:

To avoid air locks and make priming easy the suction pipe should be laid so that it rises evenly from the water source to the pump. All pipe joints have to be sealed airtight and they should be the same size or larger than the pump inlet and discharge threads.

#### **Priming:**

To prime pump, remove the priming plug and fill pump and suction pipe with water. Pump has suction flap valve and is capable of drawing air from the normal size suction pipes and hoses. Replace plug and start pump. If it pumps a small amount then stops, turn it off, check the suction pipe for leaks and repeat the priming procedure until the pump works well.

When filled with water, self-priming pumps will gradually draw air from the suction line. If priming a long or large diameter pipe, additional water may have to be added to the pump at 3 minute intervals.

N.B. Do not run the pump dry of water for extended periods as it will destroy the seal and void warranty.

#### **How the pump operates:**

Before starting the pump, make sure the suction flap valve is freely able to move. If the pump fails to prime, it could be problems in the suction pipe, such as a leak, worn impeller or too strong a suction lift. Self-priming pumps will not self-prime with high discharge head. If this is the case, the suction flap valve should be removed and a suction foot valve installed on the hose.

#### **Suction strainer:**

A suction hose strainer may be needed for portable pump use. This stops gravel or any large debris getting into the pump and causing damage.

#### **Engine:**

Instructions are enclosed. Using low speed extends the life of your engine. When continually pumping, we recommend operation at approximately 3000 rpm. In contrast, high speed will increase the pump's performance when needed as in fire-fighting or intense situations, but be aware that pump life will eventually suffer if high speed is continually applied.

#### **Type of water:**

If any liquid contains stringy or large material that may cause obstruction, a suction strainer should be used. If the pump is needed for chemicals, you must check the pump compatibility with your Dolphin representative.

#### **Fixed installations:**

In some installations and only if the pump is used under stressful conditions such as pumping uphill for long distances the pump may not work on start up.

To rectify this, a check valve should be installed between the pump and the pipe and a gate valve should be installed on the pump discharge. If it still fails open the valve to release a full flow of water and close it again. It should now pump fully. Under some conditions the procedure might have to be repeated at each start up.

## SERVICE

Pump is running but does not pump water. Check that:

There is not an air leak in the suction pipe.

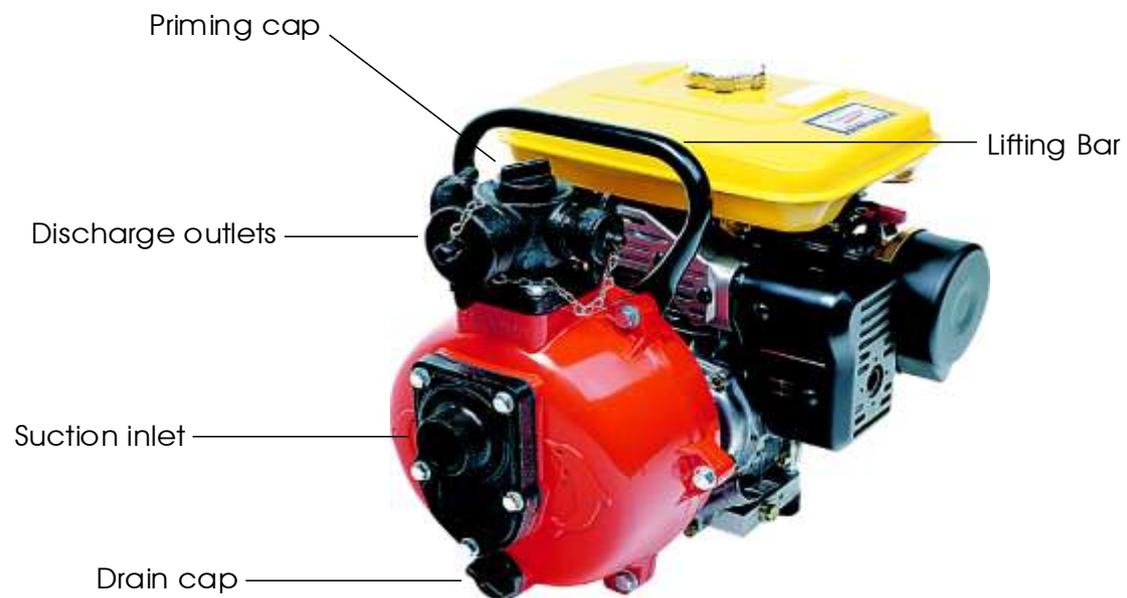
The pump has water in it.

The water has not evaporated and left the pump dried out.

Foreign substances have not clogged the pipe or impellor.

### Engine instructions:

As proved by the manufacturer. Make sure oil is put in engine first and check the level often.



## Spare Parts List - Single Impeller Fire Fighter

<u>Part No.</u>	<u>Description</u>	<u>Qty</u>
02	Casing Outer (Aluminium Alloy)	1
03	Seal Assembly	1
06	Seal Ring, Volute	1
07	Flap Valve Weight	1
08	Flap Valve Rubber	1
09	Flap Valve Washer	1
10	Cover, Suction (Inlet 1.1/2")	1
11	Priming and Drain Plug (Cap)	2
12	Gasket, Discharge Bend	1
13	Discharge Tee (Outlet 1.1/2")	1
14	Rubber Gasket	1
15	Butterfly Nut (1.1/2")	1
16	Rubber Gasket (1")	2
17	Butterfly Nut (1")	2
18A	Handle	1
19	Set Screw, UNF 3/8" x 1.1/2"	6
20	Washer 3/8	6
21	O'Ring 241x247	1
22	O'Ring 7 x 11	4
23	Washer (Stainless) 5/16"	4
24	Set Screw, UNF 5/16" x 1.1/2" (Stainless)	4
27	O'Ring 31.5 x 39.5	2
28	Screw 1/4" x 1/2"	1
29	Set Screw, 5/16" x 1"	9
32	Washer, Inside Ratchet 3/8" x 17	6
33	Nut, UNF 3/8"	6
34	Chain	3
35	Casing Inner (Aluminium Alloy)	1
36	Impeller, Close (H) Type	1
37	Diffuser (H)	1
38	Washer 5/16"	11
41	Foot 5/16"	2
41-1	Nut, UNF 5/16"	2
41-3	Spring Washer	2
51	Shaft Sleeve	1

**For your spare parts requirements please contact:**

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**or contact your local Subaru Dealer**

