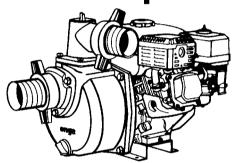


Engine Driven Pump



Owner's Manual

Model GP960

Should the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacturer for the correct advice before proceeding with the installation or operation of the product.



Rainbow Pool Products

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Relax - you've bought an onga ...

Congratulations on your decision to purchase an onga product. onga is one of the best known companies in its field, with a proud local and international reputation.

In fact, wherever people need to move water from one point to another - whether in industry, horticulture, agriculture or in and around the home - onga is a byword for reliability, value for money and technological innovation. So why does onga lead its field? Here are a few simple reasons ...

1. Continual Product Improvement

onga employ the best engineers both in Australia and around the world to develop new and better ways to pump and handle water.

2. Dedication to Quality

There is only one standard that we at onga set ourselves for both product quality and the quality of our service. That standard is excellence ... to have no-one better than us at what we do ... nothing short of that is acceptable.

3. A Fair Price

onga pumps are neither the cheapest nor the most expensive in their field. Our products do, on the other hand, always represent very good value for money - they always have and they always will.

4. Our Team of Dealers

We believe onga's hand picked authorised dealer network - throughout Australia and worldwide - are second to none. We in vest a huge sum training them and supporting them. They are your link to us, and we value their expertise and trust.

OPERATING INSTRUCTIONS onga Engine Driven Pump Model GP960

Please read these instructions in full before installing and commissioning the pump unit.

Pump Protection

Warranty of these pumps is void unless they are housed correctly and protected from weather, floods, chemicals, dust, vermin, insects etc. Housing used should be weather-proof and well vented so that engine heat and exhaust fumes can escape. To obtain best possible performance, pumps should be installed as close to water as possible.

Suction and Discharge Pipes

Suction pipe should be laid so that it rises evenly from water source to pump. This makes priming easy and avoids airlocks.

Hoses should be the same size as the pump inlet and/or larger than the discharge port.

All pipe joints must be sealed to ensure they are airtight.

Priming

To prime pump, remove priming plug and fill pump and suction pipe with water. Pump is equipped with suction flap valve and should be capable of drawing air out of normal size suction pipes or hoses. Replace plug and start the pump. If the pump pumps a little and stops, turn the pump off, check suction pipe for possible leaks and repeat priming procedure until the pump operates satisfactorily.

Self priming pumps, when filled with water, will gradually draw air out of the suction line (depending on model) to a maximum vertical lift of 6 metres (20 ft). If priming a long or large diameter pipe, additional water may have to be added to the pump at 3 minute intervals.

Suction Limitations

Theoretically, no pump can lift water higher than 9 metres (30 ft) vertically, and the practical limit is approximately 6 metres (20 ft), depending on the installation.

The pump is equipped with an internal suction flap valve. If pump fails to prime, it could be due to a leak in the suction pipe, a worn impeller or too great a suction lift. Self priming pumps do not self prime when subject to a high discharge head. Under these conditions the suction flap valve should be removed and a foot valve installed on the end of the suction line.

Suction Strainer

For portable pump use, a suction hose strainer must be used. This removes the risk of gravel or large pieces of foreign matter entering and damaging the pump.

Type of Water

Pumps are capable of pumping septic tank effluent, sink wastes, small amounts of dirt or sand, drainage or polluted water and some industrial wastes. They are not designed to pump large quantities of foreign matter. If fluid contains large or stringy material, then an adequate suction strainer should be used.

If chemicals are to be pumped, compatability of pump material should be checked with your local onga office.

SERVICE

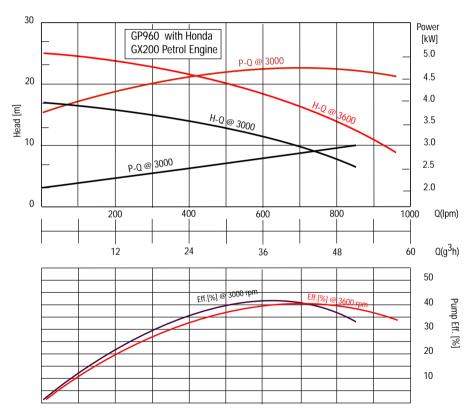
Pump runs but fails to pump water:

- 1) Check for an air leak in suction pipe.
- 2) The pump has not been filled with water.
- 3) Water has evaporated leaving pump dry.
- 4) Foreign matter has clogged the impeller or pipe.
- 5) Suction lift too high.

Engine

See instructions supplied by engine manufacturer. Be sure to initially put oil in engine and check level regularly. Low speeds extend engine life dramatically. We recommend for continuous pumping that the pump be operated at approximately 3000 r.p.m.

Be aware that unstable mounting practices may be hazardous to the operator and/or property.

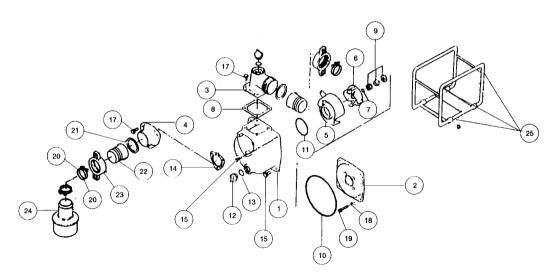


Please note: All tests carried out with potable water @ ambient air temperature.

Model GP960

Description		Part No
1	Casing	801000
2	Yoke	801001
3	Delivery Flange	801002
4	Suction Flange	801003
5	Diffuser	705077
6	Impeller	705078
7	Shim Impeller	705079
8	Gasket	705080
9	Seal Assembly	705081
10	'O' Ring Casing	705082
11	'O' Ring Diffuser	705083
12	Drain Plug	705084
13	Plug 'O' Ring	705085
14	Clacker	705086

Description		Part No
15	Bolt Casing	705015
16	Flexible Mount Kit*	800626
17	Bolt Suction	705088
18	Seal Washer	705018
19	Bolt 5/16" UNF UNBRAKO X55	705090
20	Hose Clamp	705091
21	Suction Gasket	705092
22	Hose Barb	705093
23	Nut Barb	705094
24	Suction Stainer	705095
25	Roll Frame Kit	800625
26	Standard Base*	504300
	* Not Shown	



Onga Pty. Ltd. - Warranty

- 1. Your Onga unit, when used for its designed purpose, correctly housed and vented against weather, vermin, dirt etc should render trouble free service. You should carefully read the instructions supplied and your unit should be installed and operated in accordance with these, otherwise this warranty will not apply. The warranty does not cover damage, malfunction or failure resulting from, use on incorrect voltages, alteration, accident, misuse, neglect, abulty or improper installation, misadjustment, mains supply problems, thunderstorms, lightning, infestation by insects or vermin, tampering by unauthorised persons, failure due to non company supplied components or products being substituted as part of the system, or exposure to abnormal corrosive conditions.
- 2. Onga Pty Ltd (The Company) hereby warrants in accordance with and subject to the provisions herein contained your unit against defects in material and workmanship under normal use and service and when properly installed and connected for a period of (Domestic) 12 months or 2000 hours operation (whichever occurs first) and (commercial) 3 months or 2000 hours (whichever occurs first) from the date of purchase of new equipment to the original owner and used in the original installation. This warranty is limited in time to two years from date of manufacture. In the event of a breakdown or failure of your unit or part there of, within the period of 12 months or 2000 hours which prevents normal working, the Company will, if your unit is returned to one of the addresses listed, repair the breakdown or failure and replace any defective part free of charge. Freight charges to us both ways and risk of loss or damage will be your responsibility. If new or replacement parts are supplied for in field replacement work, any labour or travelling charges will be your responsibility. Spare parts are normally stocked for the life of the unit.

Failure of underwater light bulbs will only be warranted if wiring is to approved standards, and an approved transformer incorporating thermistors has been used. Hydrostatic relief valves supplied separately or incorporated in products are sold with the express understanding that such products offer limited hydrostatic relief and no offer is made or implied as to the suitability of such products for a specific application, as the conditions of use are unknown and beyond the company's control. It is the purchaser's responsibility to ensure that the performance of the valve meets the required application.

- 3. This warranty does not extend to engines, pressure gauges, or component parts of Units not manufactured by the company but where permissible and possible the Company will make available to you the benefit of any warranty of that manufacturer thereof.
- 4. The Company will not be liable for costs involved with the taking out and re-installing of equipment that has failed under the warranty period. This includes electrician's time with wiring costs, and plumber's time and materials.
- 5. This warranty does not extend to or cover your Unit or any part of it which in the reasonable opinion of the Company has worn by fair wear and tear, abraded or corroded by fluid pumped, run in a dry condition, operated at high temperatures or outside the technical specification of the equipment, or has been damaged or rendered defective by accident, wilful act, negligence (other than that of the Company) misuse, alteration, or repair carried out by other than the Company (or by permission with its dealers), usage of other than the Company's parts, operation on voltages or frequencies other than indicated on the rating plate, incorrectly set voltage regulator, electrical fusion, lightning, or by force majeure. This warranty is an exclusive warranty and is in lieu of all other warranties and conditions, expressed or implied, whether statutory or otherwise.

Swimming pools or spa equipment will not be warranted where the Langelier saturation index "pH" range is outside 7.4 to 7.8 and they have not been regularly treated with Chlorine or Bromine based sanitising system. Use of any other chemical treating system voids warranty.

- 6. Save as foresaid the Company shall not be liable for any loss or damage of any kind whatsoever (including injury or death to persons or animals or loss or damage to property) whether suffered or incurred by you or by some third party where such loss or damage arises in relation to or as a result of the Unit or any part thereof and whether arising wholly or partly as a result of negligence of the Company, its servants or agents or otherwise. Without limitation upon the provisions of the foregoing provisions of this clause the Company shall not be liable for any consequential loss or damage (including financial loss or damage) and in no event and in no circumstances shall the liability of the Company to you or any third party exceed the total purchase price of the Unit or parts thereof in question.
- 7. Nothing in this warranty limits or restricts, or is intended to derogate from, any right or remedy which the purchaser or ultimate user of the Unit may have pursuant to Australian State and/or Australian Federal Consumer Protection Legislation and where necessary shall be so read and construed.
- 8. Claims under this warranty must give evidence of date of purchase, model and serial number of the pump or equipment. Also the claimant's name, address and telephone number.

IMPORTANT

Please attach your sales invoice/docket here as proof of purchase should warranty service be required.

Please do not return Warranty - Retain for your records.

Purchased From			
Purchase Date	Serial No	Model No	