



JOHNSON PUMP
AN SPX BRAND

Instruction Manual
Gear Pump with Oil Change Kit
GP8-19



Read and understand this manual prior to operating or servicing this product.

IB-415 (1103)

SPX®

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Recreational Craft Directive 94/25/EEC

ISO 8846: 1990/Electrical devices - Protection against ignition of surrounding flammable gases
(ISO 10133: 1994/Electrical systems - Extra low-voltage DC installations)

Electromagnetic Compatibility Directive 89/336/EEC

EN55014: 1993/Radio Disturbance

Warranty 1 year

Gear Pump with Oil Change Kit 12/24V

Light and compact oil change pump with pump body and gears made of PTFE. Complete with oil dip stick extraction tube 6 and 8 mm. 180 cm connection wires with battery clamps.

Technical Data

Port connection: 13 mm house
Self priming: Up to 1 m
Capacity: 8 l/min
Dimension: 140 x 80 mm
Weight: 1,1 kg
Fuse size 12V: 8 A
Fuse size 24V: 6 A

| Order No. | Description |
|-------------|-------------|
| 80-47508-01 | GP8-19 12V |
| 80-47508-02 | GP8-19 24V |

- Complying with ISO 8846 EN 55014
- Can run dry
- Pump body and gear is made of PTFE
- **PATENTED**
- Simple design and easy upkeep
- Reversible flow direction (switch not included)
- Can pump oil and diesel.



Caution

Read all instructions carefully before installing and using this product.

WARNING: To prevent injury, always disconnect the power source when installing or servicing any electrical product.

Always use the fuse amperage rating specified for your pump model. Failure to do may cause serious personal injury or fire hazards. The pump has been designed for discontinuous use. Under conditions of high operating pressures (by closed or blocked outlet, excessive length of the delivery circuit and/or excessive pressure due to accessories), the pump can be stressed too much and overheated. Therefore it should not be used for prolonged periods under such conditions. The pump can be mounted in any position. Fix the pump by means of suitable fastening screws just on the antivibration mounts supplied with the pump.

Installation

The electrical installation of the pump must include a protection fuse which is properly rated as indicated on the motor label.

Warranty expires if no fuse is utilized.

Always mount the anti-vibration rubber fittings supplied with the pump kit. Their usage ensures a consistent noise reduction and lower vibration levels. Electrical cabling size should depend on the distance between pump and battery power supplier
Up to 5 m length: 1,5mmq
Up to 10 m length: 2,5mmq
Over 10 m length: 4mmq

The use of undersized cabling may cause overheating of the electrical wiring and subsequent fire hazard. There will also be a voltage drop at the motor terminals with a consequent reduction in efficiency. The flow rate value indicated on the motor label is obtained with a 13 mm internal hose diameter on the outlet. Hoses having inferior diameters will cause an increase in current with potential risk of motor over-heating. To ensure the correct directional flow of the fluid as indicated by the arrow on top of the pump, it is necessary to connect the positive pole of the battery supply to the (+) marked terminal on the motor end-cap and the negative pole to the (-) marked terminal. Electrical connections must be made using suitable terminal blocks and connectors ensuring a tight laying of the electrical cables. Bad wiring can cause power losses and/or overheating of the cabling itself.

WARNING: it will be the Installer/ Technician's responsibility to ensure a correctly designed circuit installation according to the regulations in force. Environmental risks must be taken into account as well, of course.

Operation

Secure 16mm (5/8") id hose direct to the discharge ports by using stainless steel hose clamps. Use spiralreinforced hose (with a smooth internal bore) that will not collapse under suction, or rigid or semi-rigid pipework systems.

The pipework must be compatible with the liquid being pumped. Pipe runs should be kept as straight and short as possible, thus avoiding rising and dipping over obstructions. Fit a filter on the inlet to prevent debris from getting into the pump.

Tubing connection

Before making any tube/hose connections, check that the inlet ports have no end caps.

- Do not position the pump higher than 0.8 m with respect to the minimum level of the fluid to be transferred. Pump damage may occur if this height is exceeded as the pump may not draw fluid. Make sure that the outlet tube is empty and without chokes. Avoid choking the inlet or outlet tubes so that pump efficiency is guaranteed.

Oil Change

Locate the pump near the engine so the length of the hose to the engine can be kept as short as possible. To achieve best operation the pump should be installed at the same level as the maximum level of oil in the engine. Use the oil dip-stick extraction tube between the engine and the pump. Use a reinforced oil hose that can withstand 120°C for connection between the pump and oil receptacle.

Operation Oil Change: Before changing the oil, run the engine and let the temperature rise to 50°C to reduce the viscosity. This makes it easier to handle the oil. Turn off the engine. Make sure the discharge hose is securely positioned in a waste oil receptacle. Note that the discharge hose may tend to move slightly during operation. When the oil is drained (check with the dipstick of the engine).

Troubleshooting: Why doesn't the pump get started?

- Check the effectiveness of the battery power supply (voltage activity),
- Check if the fuse has blown
- Check for any foreign bodies inside the pump gear drives. To do so, disconnect the power supply, unscrew the four fixing screws and remove all residuals
- The average life span of the motor commutator brushes is approximately 800/1000 hours under normal operating conditions. Stops are possible due to brush wear and tear after such a time period.

Why isn't the pump self-priming?

The pump is fitted at a height over 0.8/1m above the fluid level;

- The pump has run dry for too long a period;
- Long periods of inactivity: in this case it is advisable to add liquid directly into the pump chamber before start-up. It is also advisable to add a drop of lubricating oil inside the pump only before starting the pump.

Care and maintenance

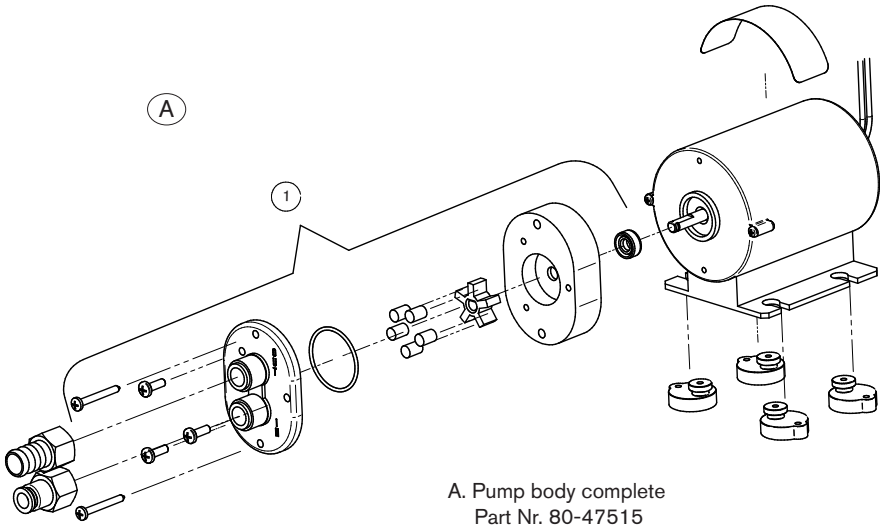
No particular maintenance is required if the pump is employed for the transfer of diesel fluids or oils. If it is expected that the pump will not be used for a period of at least 30 days. Especially in case of use with fresh or salty water, it is advisable to run fresh water through the pump and then loosen the pump front plate screws. Upon re-use, run the pump shortly (a few seconds) and then tighten the screws again. Under maximum operating pressure conditions check that the motor current value is within the motor label specifications.

To open the pump

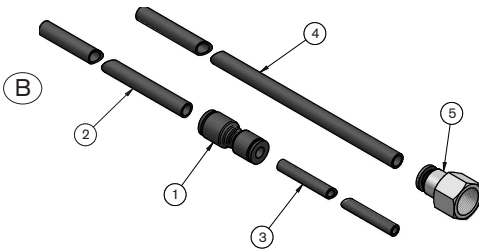
- It is recommended that a skilled technician is consulted for any repair work or replacement of worn-out inside components (exclusively original spare parts are to be used).
- During the whole warranty period the pump will have to be opened and inspected only by Johnson Pump brand authorized personnel, failing which warranty will automatically expire.
- During the warranty period, only by authorized Johnson Pump brand personnel, failing which the warranty will expire.

Oil transfer pump

- 1) Mounts 4 vibration dampeners on the motor
- 2) Mount the hose fitting complete of oring inlet you can use 8 mm or 8/6 rilsan hoses
- 3) Fit the hose clamp on the hoses
- 4) As an option you can mount the rilsan hose on the inlet side 8 mm and 6 mm hose between the reduction. Do not mount hoses less than 13 mm diam. on the outlet connection.
- 5) Connect the red wire to the positive pole of the battery between the extension lead
- 6) Connect the black wire to the negative pole of the battery between the extension lead
- 7) To revert the flow direction connect the red cable terminal on the black wire of the extension lead and viceversa.

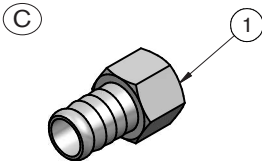


A. Pump body complete
Part Nr. 80-47515



B. Kit hoses & inlet barb
Part Nr. 80-47516

| Pos | Qty | Title |
|-----|-----|---------------------|
| 1 | 1 | Reducing connection |
| 2 | 1 | Hose D8x200 |
| 3 | 1 | Hose D6x600 |
| 4 | 1 | Hose D8x800 |
| 5 | 1 | Connection |



C. Outlet house barb
Part Nr. 80-47517

| Pos | Qty | Title |
|-----|-----|------------|
| 1 | 1 | Connection |



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