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Evinrude 0391631

Johnson Evinrude OMC Outboard Water Pump Repair Kit

Model: 0391631 | Brand: Evinrude

INTRODUCTION

This instruction manual provides essential information for the proper installation and maintenance of the genuine Johnson Evinrude OMC Outboard Water Pump Repair Kit, part number 0391631. This kit is designed to replace worn or damaged components of your outboard motor's water pump, ensuring efficient cooling and optimal engine performance. It is a factory original equipment part, not an aftermarket substitute.

For optimal performance and longevity, it is crucial to follow the installation guidelines carefully. Please verify your own fitment before proceeding with the installation.

SAFETY INFORMATION

Always prioritize safety when working on marine engines. Failure to follow safety precautions can result in serious injury or damage to equipment.

- Ensure the engine is turned off and the battery is disconnected before beginning any work.
- Allow the engine to cool completely before handling components.
- Wear appropriate personal protective equipment (PPE), including gloves and eye protection.
- Work in a well-ventilated area.
- Keep all tools and parts organized to prevent loss or damage.
- Refer to your specific outboard motor's service manual for detailed disassembly and reassembly procedures.

KIT CONTENTS

The Johnson Evinrude OMC Outboard Water Pump Repair Kit 0391631 includes the following genuine components:



Figure 2: Detailed view of the new mounting bolts, washers, and O-rings. These components are crucial for a secure and watertight seal.



Figure 3: Assortment of gaskets provided in the kit, designed to ensure proper sealing between water pump components and the engine block.

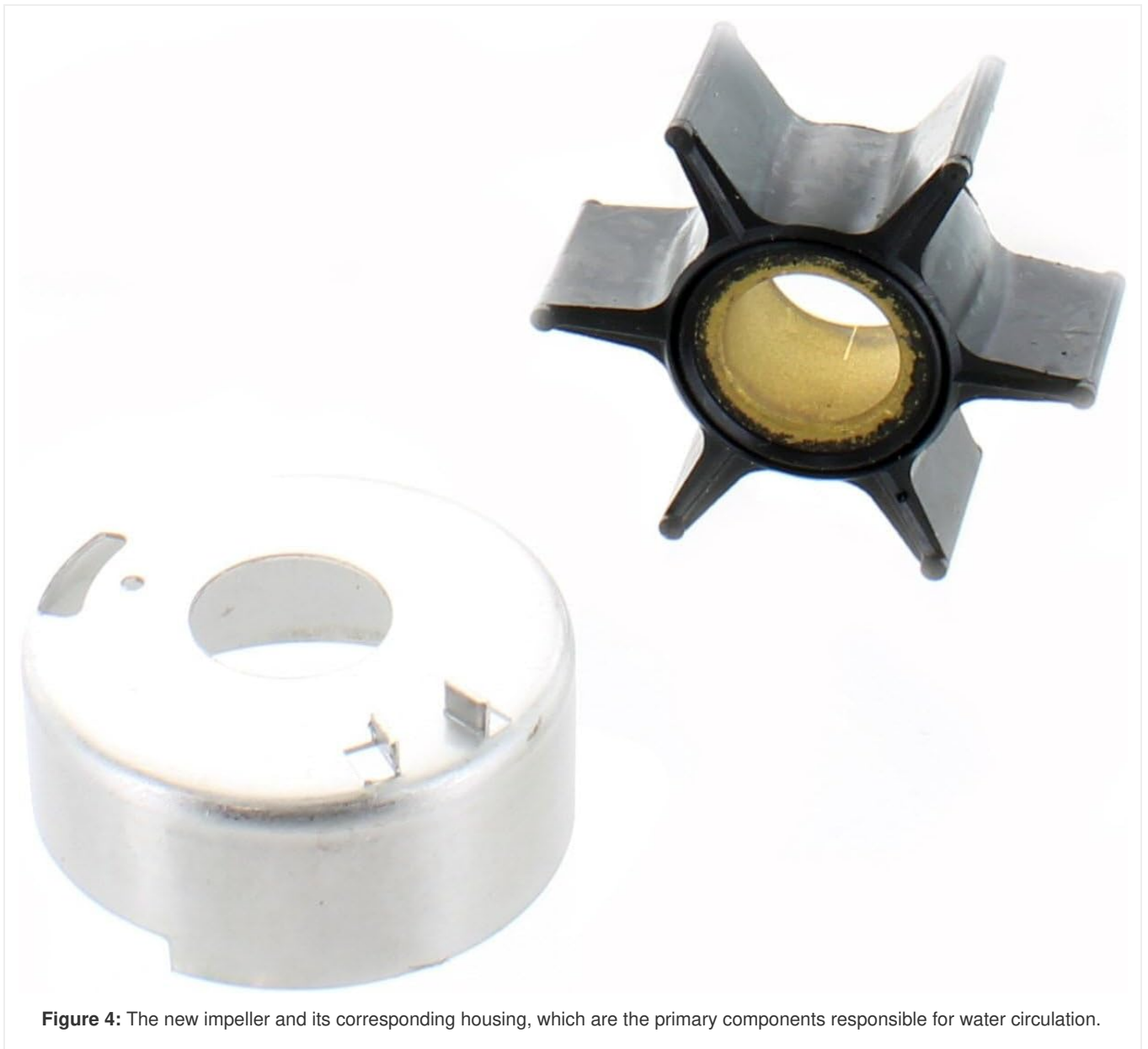


Figure 4: The new impeller and its corresponding housing, which are the primary components responsible for water circulation.

- Water Pump Impeller (Figure 4)
- Water Pump Housing (Figure 4)
- Gaskets (various shapes and sizes) (Figure 3)
- O-rings (various sizes) (Figure 2)
- Mounting Bolts and Washers (Figure 2)
- Key/Pin for Impeller (if applicable, often included with impeller)

INSTALLATION (SETUP)

This section outlines the general procedure for replacing an outboard water pump. Specific steps may vary depending on your outboard model. Always consult your engine's service manual for precise instructions.

Required Tools and Materials:

- Basic hand tools (wrenches, sockets, screwdrivers)
- Torque wrench
- Marine grease or sealant (as recommended by your engine manufacturer)
- Clean rags

Procedure:

1. **Prepare the Engine:** Ensure the outboard motor is securely mounted and in the upright position. Disconnect the battery and ensure the engine is cool.
2. **Drain Gearcase Oil (if necessary):** Some models require draining the gearcase oil before lower unit removal. Consult your service manual.
3. **Remove Lower Unit:** Locate and remove the bolts securing the lower unit to the midsection of the outboard. Carefully lower the unit, ensuring no cables or hoses are damaged.
4. **Access Water Pump:** Once the lower unit is removed, the water pump housing will be visible at the top of the driveshaft. Remove the bolts securing the old water pump housing.
5. **Remove Old Components:** Carefully remove the old water pump housing, impeller, gaskets, and any other worn components. Note the orientation of the impeller vanes for correct installation of the new one.
6. **Clean Mounting Surfaces:** Thoroughly clean all mating surfaces on the lower unit and driveshaft. Remove any old gasket material or corrosion.
7. **Install New Components:**
 - Place the new base gasket onto the lower unit.
 - Install the new water pump housing.
 - Lubricate the driveshaft and the inside of the new impeller with marine grease.
 - Align the impeller key/pin with the slot in the driveshaft and slide the new impeller into the housing, ensuring the vanes are oriented correctly (usually clockwise when viewed from above).
 - Install the remaining gaskets, O-rings, and wear plates as per your engine's service manual.
 - Secure the water pump housing with the new mounting bolts and washers provided in the kit. Torque to manufacturer's specifications.
8. **Reinstall Lower Unit:** Carefully lift the lower unit back into position, aligning the driveshaft with the engine crankshaft and the shift rod. Ensure all connections are properly seated.
9. **Secure Lower Unit:** Reinstall and torque the lower unit mounting bolts to manufacturer's specifications.
10. **Refill Gearcase Oil (if necessary):** If drained, refill the gearcase with the recommended oil.
11. **Reconnect Battery:** Reconnect the battery.

OPERATING (POST-INSTALLATION CHECK)

After installing the water pump repair kit, it is crucial to perform a functional check to ensure proper operation and cooling.

1. **Provide Water Supply:** Connect a garden hose to the flushing attachment on your outboard, or submerge the lower unit in a test tank or barrel filled with water. Ensure the water intake grates are fully submerged.
2. **Start Engine:** Start the engine and allow it to idle.
3. **Check for Water Flow:** Observe the tell-tale (pilot water discharge) stream. A strong, steady stream of water indicates the water pump is functioning correctly. If there is no stream, a weak stream, or intermittent flow, shut off the engine immediately.
4. **Monitor Engine Temperature:** Allow the engine to run for a few minutes while monitoring the temperature gauge (if equipped) or warning lights. The engine should maintain a normal operating temperature.
5. **Inspect for Leaks:** Visually inspect the area around the lower unit and water pump for any signs of water or oil leaks.

If any issues are observed during the post-installation check, refer to the Troubleshooting section or consult a qualified marine technician.

MAINTENANCE

Regular maintenance of your outboard's water pump is vital for preventing overheating and ensuring reliable operation. The water pump impeller is a wear item and requires periodic replacement.

- **Impeller Replacement Interval:** It is generally recommended to replace the water pump impeller every 100 hours of operation or annually, whichever comes first. This interval may be shorter in sandy or silty water conditions.
- **Visual Inspection:** During routine maintenance, visually inspect the tell-tale stream for consistent flow. Any reduction in flow or intermittent discharge can indicate a failing impeller.
- **Overheating Signs:** Be alert for signs of engine overheating, such as steam from the engine, a hot engine block, or activation of temperature warning alarms. These are strong indicators of water pump issues.
- **Winterization/Storage:** Ensure the cooling system is properly drained and flushed during winterization to prevent freezing and corrosion.

TROUBLESHOOTING

If you experience issues after installing the water pump repair kit, consider the following common problems and solutions:

Problem	Possible Cause	Solution
No water from tell-tale / Weak stream	<ul style="list-style-type: none">• Impeller installed incorrectly (vaned reversed)• Air leak in cooling system• Clogged water intake or tell-tale tube• Damaged new impeller or housing• Improperly seated lower unit	<ul style="list-style-type: none">• Re-check impeller orientation.• Inspect all gaskets and seals for proper seating.• Clear any obstructions from water intakes or tell-tale.• Inspect new components for defects; replace if necessary.• Ensure lower unit is fully seated and bolts are torqued.
Engine Overheating	<ul style="list-style-type: none">• Insufficient water flow (see above)• Thermostat issue (not part of this kit)• Engine running lean (not related to water pump)	<ul style="list-style-type: none">• Address water flow issues first.• Consult engine service manual for thermostat testing/replacement.• Seek professional marine mechanic assistance for engine tuning.
Water/Oil Leak from Lower Unit	<ul style="list-style-type: none">• Damaged or improperly installed gaskets/O-rings• Loose lower unit bolts• Cracked housing (unlikely with new part)	<ul style="list-style-type: none">• Re-inspect and re-install gaskets/O-rings.• Ensure all lower unit bolts are torqued to specification.• Inspect new housing for manufacturing defects.

If problems persist after troubleshooting, it is recommended to consult a certified marine technician.

SPECIFICATIONS

Attribute	Detail
Brand	Evinrude
Manufacturer	Johnson Evinrude OMC
OEM Part Number	0391631 (Supersedes 0388891)
UPC	745419210847, 074541921087
Recommended Uses	Repairing outboard motor water pumps
Material	Aluminum (for housing components)
Item Weight	1.3 Pounds
Product Dimensions	7 x 6 x 6 inches
Engine Type (Applicable)	4 Stroke (Note: Kit is for water pump, compatible with various engine types)
Maximum Horsepower (Applicable)	Up to 75 Horsepower (Note: Kit is for water pump, compatible with various engine sizes)

WARRANTY AND SUPPORT

As a genuine OEM part, this Johnson Evinrude OMC Water Pump Repair Kit 0391631 is manufactured to high standards. For specific warranty information, please refer to the warranty policy provided by the original manufacturer or the authorized seller at the time of purchase.

For technical support or further assistance with installation and troubleshooting, it is recommended to contact an authorized Evinrude/Johnson service center or a qualified marine mechanic.

You may also refer to the official Evinrude or Johnson Outboards website for service manuals and additional resources.