



Water Pump Kits P/N 5001594, 5001595, 5007972

Application

Use this instruction sheet when installing the above water pump kits on *Evinrude*® outboards, 65 – 300 HP.

Safety Information

The following symbols and/or signal words may be used in this document:

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

NOTICE

Indicates an instruction which, if not followed, could severely damage engine components or other property.

These safety alert signal words mean:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!

IMPORTANT: Identifies information that controls correct assembly and operation of the product.

For safety reasons, this kit must be installed by an authorized *Evinrude* dealer. This instruction sheet is not a substitute for work experience. Additional helpful information may be found in other service literature.

DO NOT perform any work until you have read and understood these instructions completely.

Torque wrench tightening specifications must strictly be adhered to.

Should removal of any locking fastener (lock tabs, locknuts, or patch screws) be required, always replace with a new one.

When replacement parts are required, use *Evinrude/Johnson*® *Genuine Parts* or parts with equivalent characteristics, including type, strength and material. Use of substandard parts could result in injury or product malfunction.

Always wear EYE PROTECTION AND APPROPRIATE GLOVES when using power tools.

Unless otherwise specified, engine must be OFF (not running) when performing this work.

Always be aware of parts that can move, such as flywheels, propellers, etc.

Some components may be HOT. Always wait for engine to cool down before performing work.

If you use procedures or service tools that are not recommended in this instruction sheet, YOU ALONE must decide if your actions might injure people or damage the outboard.

This instruction sheet may be translated into other languages. In the event of any discrepancy, the English version shall prevail.

To The Installer: Give this sheet and the operating instructions to the owner. Advise the owner of any special operation or maintenance information contained in the instructions.

To The Owner: Save these instructions in your owner's kit. This sheet contains information important for the use and maintenance of your engine.



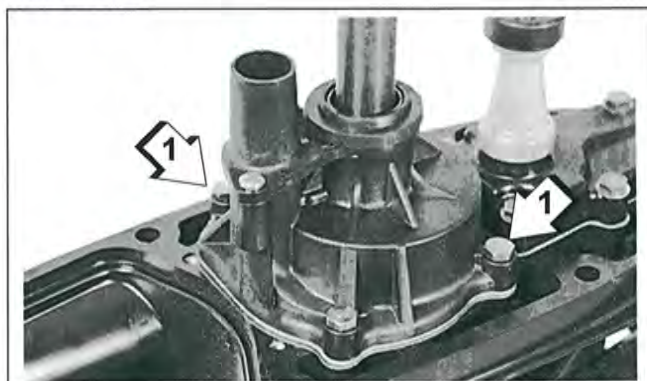
Water Pump Kits (Evinrude 65 – 300 HP)

Ref	P/N	Name of Part	Qty
-	5001594	WATER PUMP REPAIR KIT	1
-	5001595	WATER PUMP REPAIR KIT	X 1
-	5007972	WATER PUMP REPAIR KIT	Y 1
1	338484	*GASKET, Impeller plate	1
2	338485	*PLATE, Impeller hsg-(Stainless)	1
3	331353	*SEAL, Impeller housing plate	1
4	5001593	*IMPELLER Assy	1
4	5001469	*IMPELLER Assy	W 1
5	302035	**O-RING, Impeller to plate	1
6	331107	**KEY, Impeller	1
7	338486	*CUP, Impeller-(Stainless)	1
8	331188	*O-RING, Cup to housing	1
9	360347	*IMPELLER HOUSING	1
9	435990	*IMPELLER HOUSING	W 1
10	314008	*GROMMET, Water tube to cover	X 1
11	346865	*O-RING, Water tube	Y, 1 4
12	338893	*COVER, Impeller housing	X 1
12	354578	*COVER, Impeller housing	Y, 1 1
13	302325	*SCREW, Impeller housing	4
14	306643	*SCREW, Cover to impeller hsg	2
15	320943	*GROMMET, Pump to exh housing	1
16	349354	*GROMMET, Sleeve, 20" models	Z, 1 1
17	338601	*GROMMET, Sleeve, 25" and 30"	1 1
18	354580	*SLEEVE, Extension - 25 in. models	1 1
18	354579	*SLEEVE, Extension - 30 in. models	1 1

A Triple-Guard Grease
B Gasket Sealing Compound
C Adhesive 847
D Moly Lube
W Included with water pump kit p/n 5001594
X 5001595 – Use on outboards with 1/2 in. (inside) diameter water tube
Y 5007972 – Use on outboards with 5/8 in. (inside) diameter water tube
Z Not used on 60° V4 and V6
1 Not included with water pump kit p/n 5001594

Disassembly

Rotate the driveshaft counterclockwise to unlock the impeller key. Remove the four impeller housing screws.

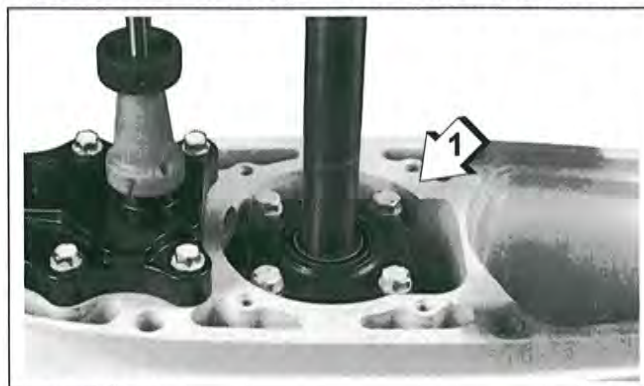


1. Screws

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Slide the water pump off the driveshaft. Remove the impeller key, o-ring, impeller plate, and gasket.

Make sure gasket surface is clean and smooth.



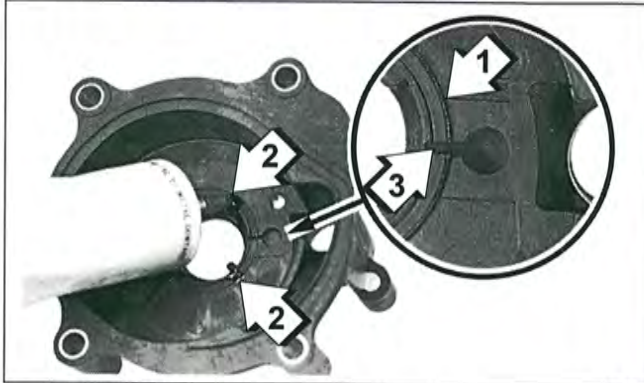
1. Gasket surface

006876

Assembly

Apply a drop of *Adhesive 847* in the seal ring groove at each of the four ribs.

IMPORTANT: Do not allow any adhesive to get into the air bleed groove in the impeller housing. If this groove is blocked by adhesive, the pump will lose its prime and will not pump water.

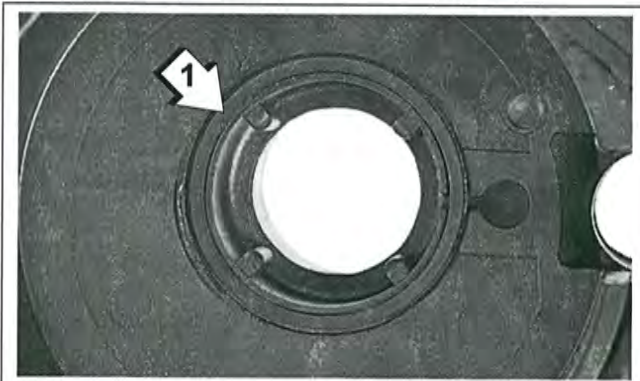


1. Seal ring groove
2. Ribs
3. Air bleed groove

2311

DR1185

Install the o-ring in impeller housing groove.



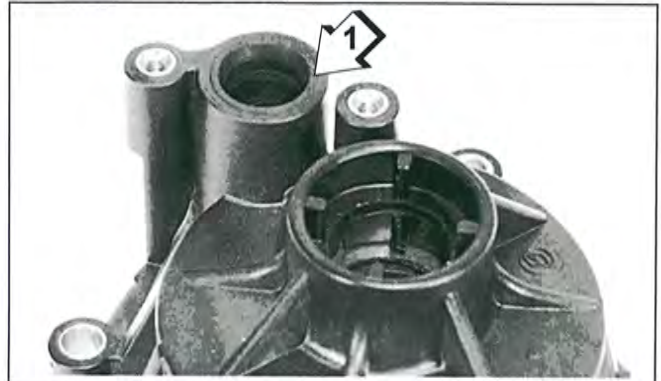
1. O-ring

34814

Lightly coat the exterior rim of the impeller cup with *Gasket Sealing Compound*. Install the cup in the impeller housing. The cup locks in place in the housing with a square index tab.

Make sure the vent hole in the impeller cup is open.

On outboard models with 1/2 in. diameter water tube, install the water tube grommet with the inside taper facing up.

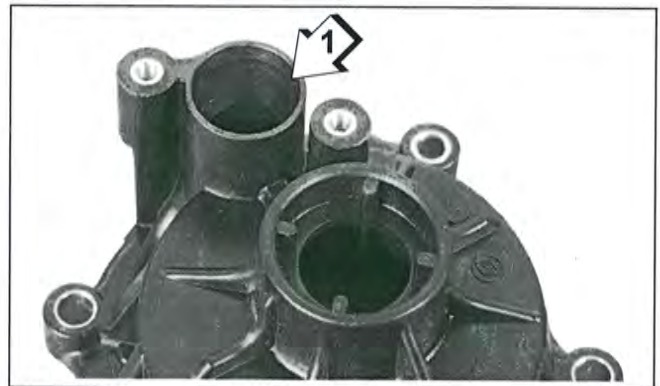


1. Water tube grommet

32000

On outboard models with 5/8 in. diameter water tube, apply a light coat of *Triple-Guard* grease to the inside of the impeller housing water tube cavity and to the water tube o-rings.

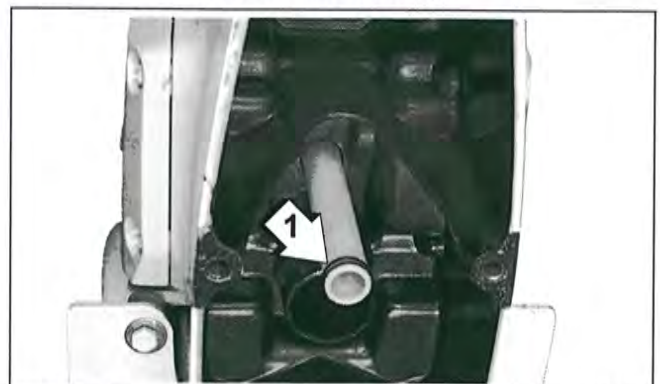
IMPORTANT: Impeller Housing, P/N 360347, can be identified by a chamfer on the inside edge of the water tube fitting.



1. Chamfer

007170

On outboard models with 5/8 in. diameter water tube, remove water tube from exhaust housing and replace the o-rings. Apply a light coat of *Triple-Guard* grease to the o-rings and reinstall the water tube in the exhaust housing.



1. O-rings

007152

Apply *Triple-Guard* grease to screw threads and install the impeller housing cover. Tighten screws to a torque of 24 to 36 in. lbs. (3 to 4 N·m).

Apply *Adhesive 847* to the flat side of the impeller housing grommet. Install the grommet, flat side down.



2. Impeller housing cover
3. Impeller housing grommet
32001

Lightly coat the inside of the liner with *Triple-Guard* grease. With a counterclockwise rotation, install the impeller into the liner with the slot for the impeller key facing out.

Apply a thin bead of *Adhesive 847* in the seal groove, and install the special shaped o-ring seal.



1. O-ring
34815

Apply *Gasket Sealing Compound* to both sides of a new impeller plate gasket. Install the gasket and impeller plate.

Apply *Triple-Guard* grease to a new impeller o-ring. Slide the o-ring down the driveshaft and

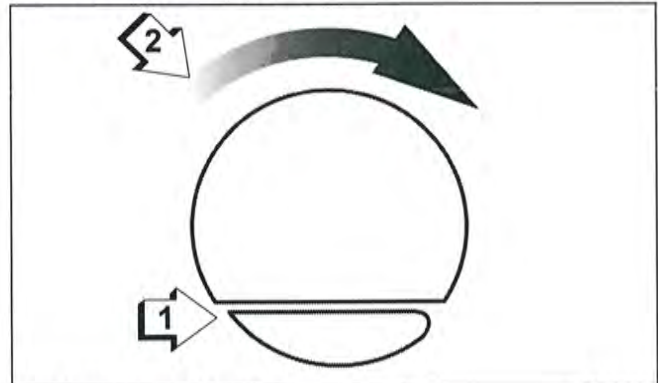
half way over the installed impeller key to temporarily hold key in place.



1. Impeller plate gasket
2. Impeller plate
3. O-ring
4. Impeller key
006871

The sharp edge of the key is the leading edge in clockwise rotation.

Slide the water pump down the driveshaft. Align impeller slot with the impeller key. Rotate the driveshaft to engage the key with the impeller, and slide water pump down over key. Be sure impeller key does not fall out of position.



5. Sharp edge of drive cam
6. Direction of driveshaft rotation
CO2995

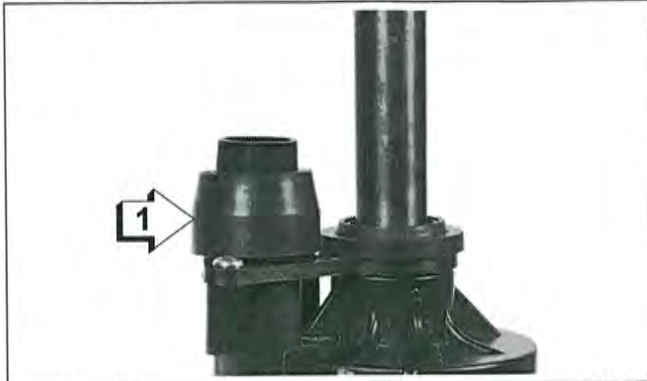
NOTICE

Make sure the impeller engages the impeller key. Serious powerhead damage will result if the impeller key is not in place.

Align the impeller housing with the gearcase.

Apply *Gasket Sealing Compound* to threads of the four impeller housing screws. Tighten the screws to a torque of 60 to 84 in. lbs. (7 to 9.5 N·m).

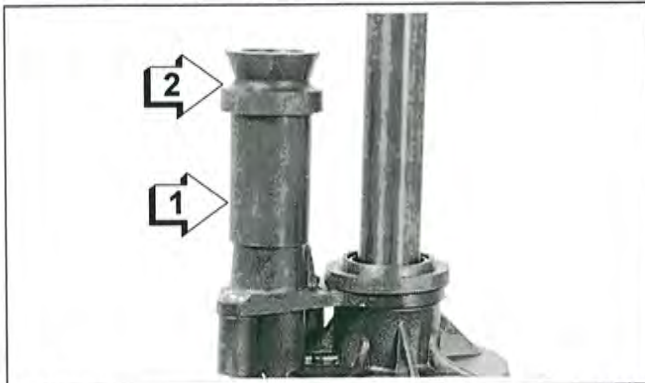
On 20 in. outboard models (except 60° V4 and V6), place the Grommet, P/N 349354, on the housing cover.



7. Grommet

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On 25 in. and 30 in. outboard models, place the appropriate water tube sleeve and grommet on the impeller housing cover.



8. Spacer

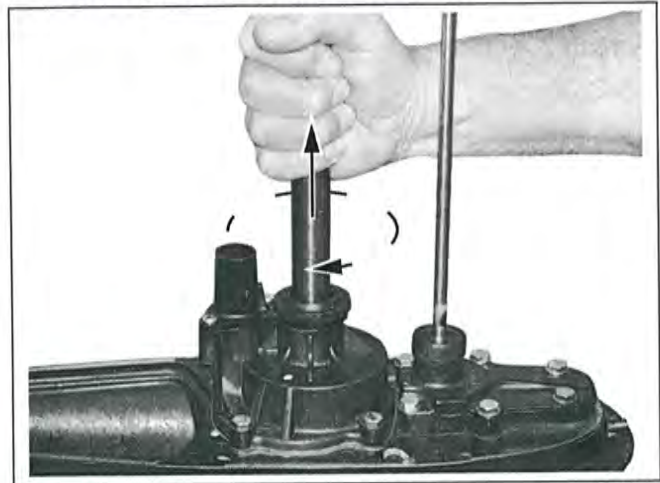
9. Grommet

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After the water pump is assembled completely, rotate the driveshaft counter clockwise 1/4 turn to unlock and release the impeller and key from the driveshaft.

Next, pull up on the driveshaft and turn clockwise to lock the impeller to the shaft. This process

increases pump efficiency by locking the impeller in a lower position on the driveshaft.



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NOTICE

Before installing the gearcase, the shift rod adjustment **MUST** be checked. Refer to the correct **Service Manual**.

Install the gearcase assembly on the outboard. Refer to the correct **Service Manual**.

⚠ WARNING

Failure to properly tighten all gearcase retaining screws can result in gearcase loss and loss of boat control at high speed.

Tighten the gearcase mounting screws to a torque of:

- 3/8 in. screws – 26 to 28 ft. lbs. (35 to 38 N·m)
- 7/16 in. screws – 45 to 50 ft. lbs. (61 to 68 N·m)

Start outboard to check water pump operation.