

Water Pump Replacement for BF25A/D • BF30A/D Engines

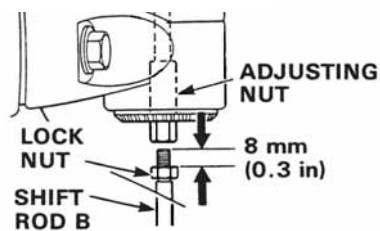
Prior to removing the gear case, make sure the motor is secure on an engine stand or transom of a boat that is out of the water. Tilt the motor up to the highest position and place the shift lever in the "R" (Reverse) position.

Record the number of threads exposed on shift rod B before loosening the lock nut. This is necessary to ensure the adjusting nut is returned to the same position.

Number of threads exposed: _____

With two 10 mm open-end wrenches, loosen the lock nut and back the adjusting nut off until the shift rods separate.

During reassembly, if the original position of the lock nut was not recorded, set the lock nut to 0.3 inches (8 mm) from the end of shift rod B, and then tighten the adjusting nut to the lock nut.



With a 14 mm wrench, remove the four 10 x 40 mm bolts and washers from the gear case assembly. The vertical shaft and shift rod B will stay connected to the gear case, so remove the gear case without twisting, and then place the unit on a workbench.

Using a 10 mm wrench, remove the four 6 x 40 mm bolts, washers, and collars attaching the water pump.

Gently pry the pump housing and remove it from the vertical shaft. Do not remove the pump base.

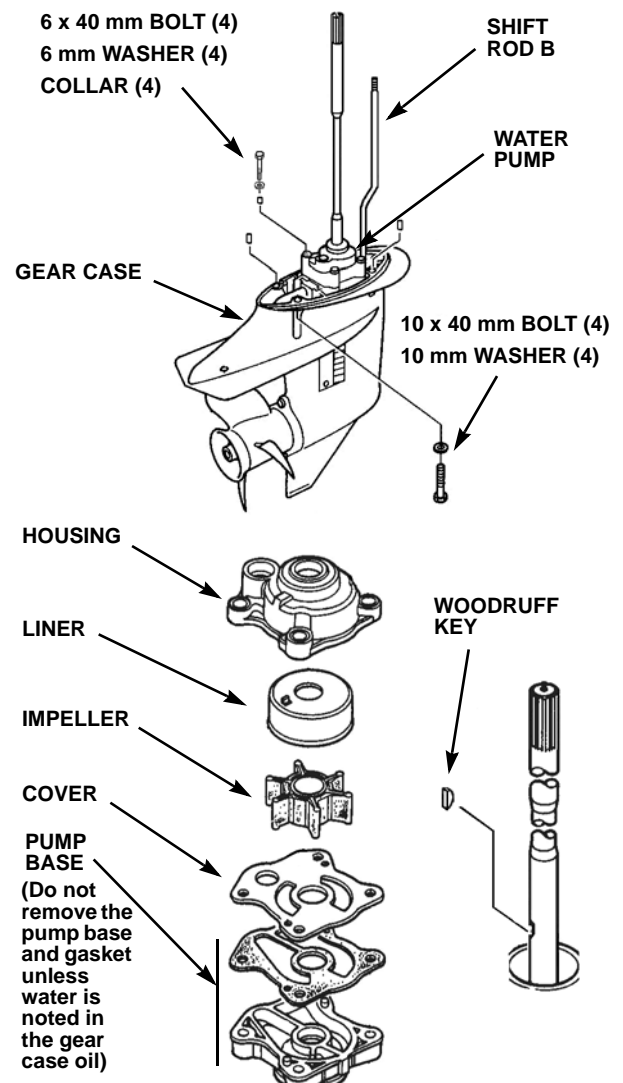
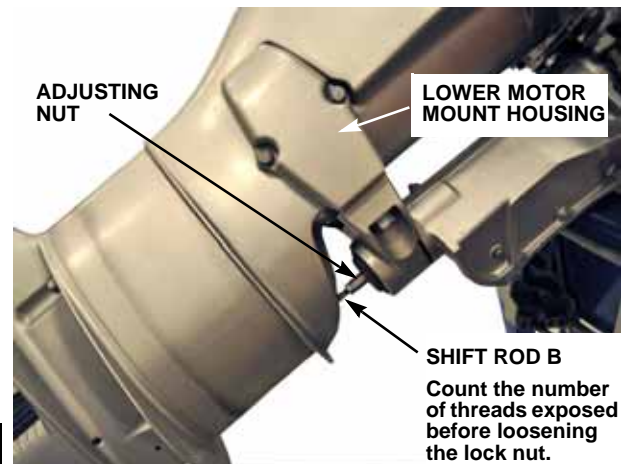
Remove the Woodruff key and set aside for reuse.

Check the impeller, liner, and cover for wear or cracks.

Use the service kit (1) if the impeller is the only part worn.

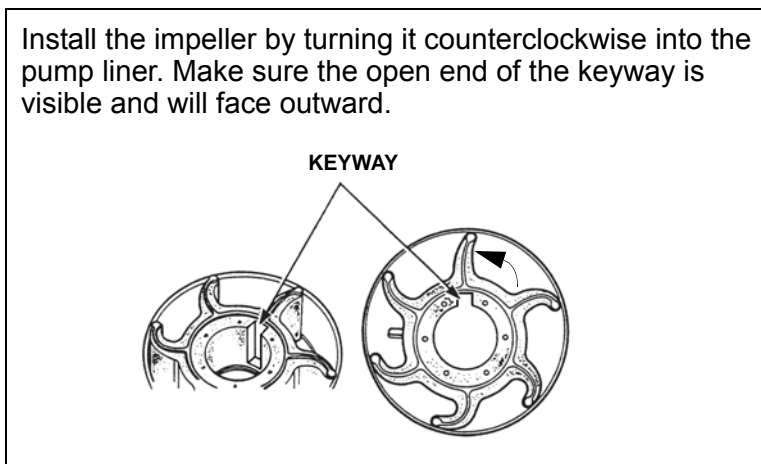
Use the rebuild kit (2) if the liner and/or the impeller cover are worn.

(1) Service kit	Impeller, O-ring, gasket B, key	06192-ZV7-000
(2) Rebuild kit	Housing, liner, impeller, tube seal ring, O-ring, cover, key, gasket B, 4 bolts/washers, 4 collars, base gasket	06193-ZV7-020



Start reassembling the pump by applying grease to the inner surface of the pump liner, housing O-ring, and the water tube seal ring.

Install the impeller by turning it counterclockwise into the pump liner. Make sure the open end of the keyway is visible and will face outward.



Insert the new greased O-ring, water tube seal ring, cover, and gasket B into the impeller housing.

Place a small amount of grease on the Woodruff key and insert it into the vertical shaft slot.

Slide the water pump assembly over the shaft, making sure to align the Woodruff key with the impeller keyway.

Install the four bolts, washers, and collars, and torque the 6 x 40 mm bolts to **8.0 ft•lb (11 N•m)** in a crisis-cross pattern to make sure the housing seats correctly.

Apply marine grease to the vertical shaft splines. Make sure the two dowel pins are in place and install the gear case assembly into the motor.

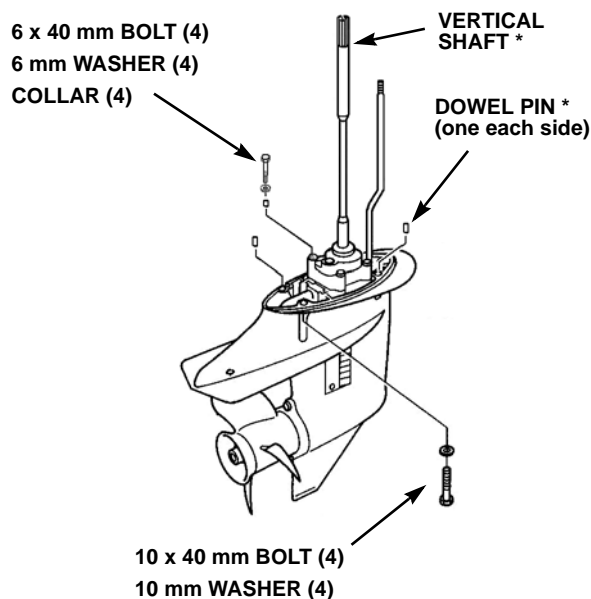
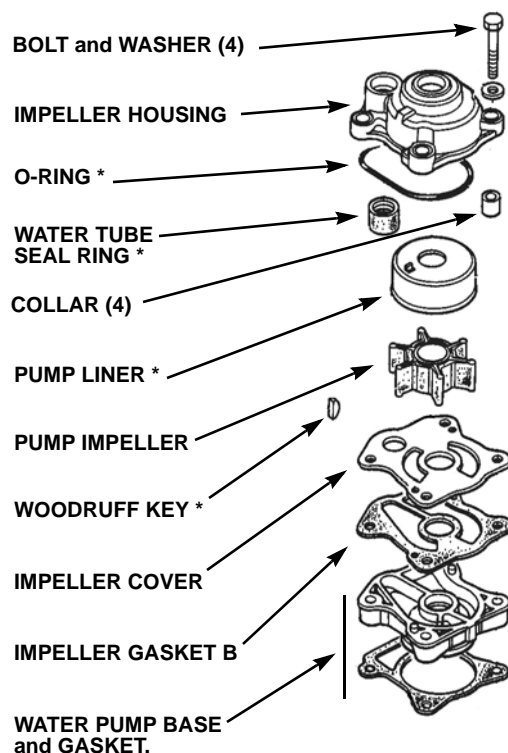
If needed, turn the prop clockwise to align the vertical shaft splines. This will rotate the impeller counterclockwise.

Start threading the 10 x 40 mm bolts to hold the gear case in place.

Attach the adjuster nut to shift rod B until contact is made with the lock nut. Tighten the lock nut against the adjuster nut so the same number of threads are visible as recorded during disassembly.

Torque the four gear case 10 x 40 mm bolts to **25.3 ft•lb (35 N•m)**.

Make sure that the shift lever moves smoothly into all positions.



* Apply marine grease