

## Camshaft Oil Seal Replacement - 45/50 (4-Stroke)

### Models Affected

#### MERCURY AND MARINER

1995 and 1996 Model 45/50 (4-Stroke)

Serial Number USA 0G382347 and Below

The listed 1995 and 1996 Mercury and Mariner outboards may have a loose fit between the upper camshaft oil seal and the seal bore in the cylinder head. Seals have pushed out of position creating a major oil leak which could cause a powerhead failure.

These outboards must have the upper camshaft seal repaired to avoid a failure and to assure customer satisfaction.

### Owner Notification - USA/Canada

A letter will be sent to every registered owner of an affected outboard. The letter will advise the owner to return their outboard to their selling dealer or any authorized dealer for repair of the upper camshaft oil seal. A copy of the letter is included with this Service Bulletin.

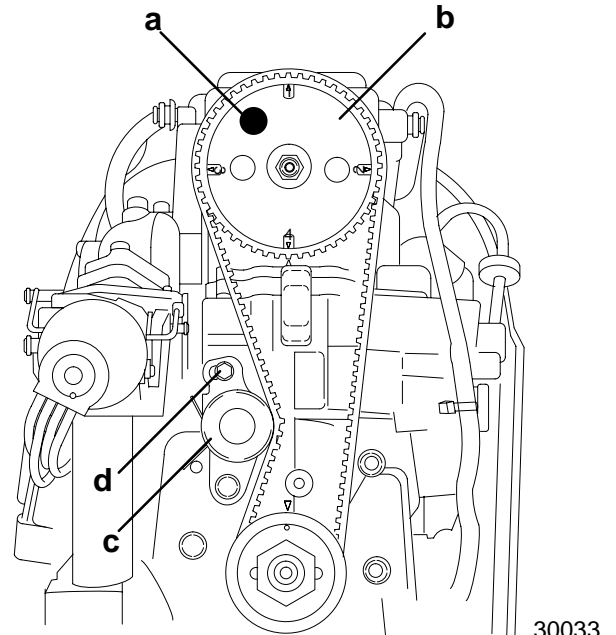
### Repair Identification

Outboards within the serial number range listed that have been reworked at the factory are identified by:

- A black paint dot on the camshaft driven gear (Figure 1).

### Dealer Outboard Inventory

Affected outboards in dealer inventory **MUST BE** reworked prior to customer delivery.

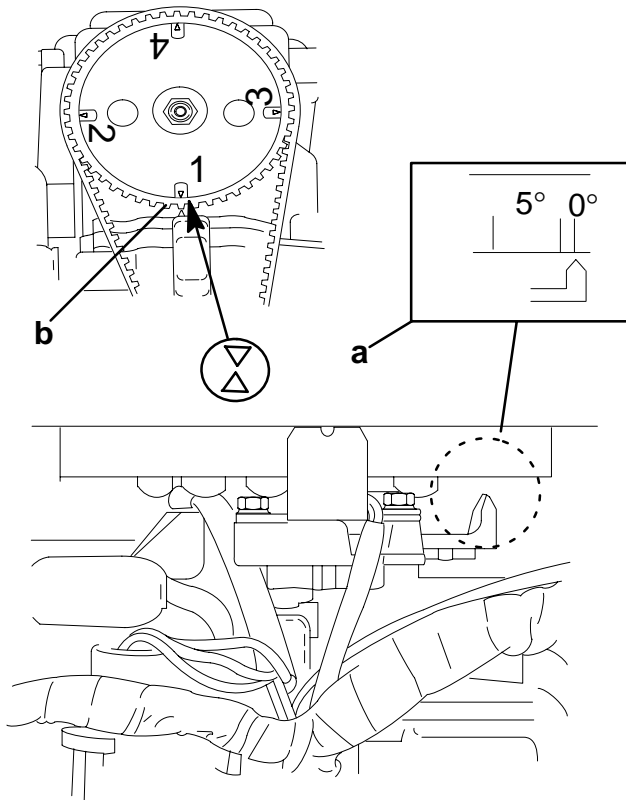


- a - Black Paint Dot
- b - Camshaft Driven Gear
- c - Belt Tensioner
- d - Belt Tensioner Fastening Bolt

**Figure 1. 45/50 Rework Identification Marking**

## Correction

1. Rotate flywheel clockwise to align the 0° (TDC) timing mark with the timing pointer (Figure 2).



- a - Flywheel Timing Mark 0° (TDC)  
b - Camshaft Driven Gear Timing Mark - Cylinder Number 1

**Figure 2. Timing Pointer Alignment**

**IMPORTANT: Refer to outboard service manual for camshaft driven gear removal/installation.**

2. Loosen belt tensioner fastening bolt to release the tension and remove timing belt from driven gear.
3. Remove camshaft driven gear.

### IF EXISTING SEAL IS IN PLACE

4. Check to make sure seal is seated in until it makes contact with the inside flat surface. Seal may be seated by gently tapping in with a soft face hammer.

### IF INSTALLING A NEW SEAL

5. Position seal with part number side facing outward. Press seal in until it makes contact with the inside flat surface.

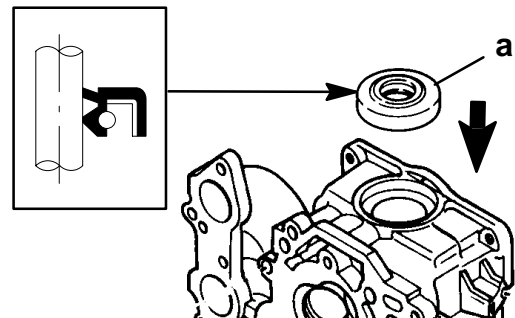
## SECURING SEAL (EXISTING OR NEW)

**IMPORTANT: Quickly remove any Loctite that spreads to the inside of the chamfered application area.**

6. Clean seal/seal area using LPS Zero Tri Cleaner/Degreaser or an equivalent cleaner.

**NOTE: Seal must be properly seated before it is secured in place with a bead of Loctite 499 Super Bond-er.**

7. Dry the area and apply a continuous bead of Loctite 499 Super Bonder (Quicksilver p/n 92-852882) into the chamfer around O.D. of the oil seal and I.D. of the seal bore (Figure 3).



- a - Upper Camshaft Oil Seal  
b - Chamfer Around O.D. of Oil Seal

**Figure 3. Securing Upper Camshaft Seal**

**IMPORTANT: Both the flywheel and the camshaft driven gear must be aligned with their alignment marks when installing the timing belt. (Figure 2)**

8. Reinstall camshaft driven gear and timing belt as outlined in outboard service manual.
9. Apply a black paint dot on the camshaft driven gear as shown in (Figure 1) to indicate a repaired seal.
10. Allow Loctite to cure overnight before placing unit into service.

## Warranty

Complete a warranty claim listing:

- Outboard serial number(s)
- Qty 1 p/n 26-825048 Oil Seal, Upper Camshaft (if replaced)
- Qty 1 p/n 92-852882 Loctite 499 Super Bonder, 0.10 oz. Tube

**NOTE:** *One 0.10 oz. tube should be sufficient to repair approximately 7 units.*

- One (1) hour labor
- Warranty Flat Rate Code: CP56
- Failure Code: 401-40





A BRUNSWICK COMPANY

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P.O. BOX 1939  
FOND DU LAC, WI 54936-1939 U.S.A.

PHONE (414) 929-5000 ■ FAX (414) 929-5060

Dear Owner:

Our records indicate that you own a Mercury or Mariner outboard that may be affected by a loose camshaft oil seal. If the camshaft oil seal becomes loose, an oil leak will result at the top of the engine. If not corrected, the engine could lose enough oil to result in serious internal damage.

**WHAT YOU SHOULD DO**

Contact your authorized Mercury Marine dealer, preferably the one who sold you the engine. Make an appointment to have the oil seal repaired per Service Bulletin 96-12. Then, deliver your outboard and this letter to your dealer at the appointed time. The reverse side of this letter is a claim that your dealer needs to send us for record and reimbursement.

**WHAT WE WILL DO**

We will reimburse the authorized dealer for repairing the engine. You will not be charged for this procedure.

We regret and sincerely apologize for any inconvenience that this recall may cause you. However, we are taking this action to insure your boating enjoyment and continued satisfaction with our product.

Sincerely,  
Mercury Marine

A handwritten signature in black ink that reads "Bob Kachelek".

Bob Kachelek  
Director, Outboard Service