



service bulletin

No. 96-11

Crankshaft Replacement - 45/50 (4-Stroke)

Models Affected

MERCURY AND MARINER

1996 Model 45/50 (4-Stroke)

Serial Number USA 0G370691 thru 0G393384
and 0G403966 thru 0G404239

The listed 1996 Mercury and Mariner outboards may have defective crankshafts. Affected crankshafts may have a crack(s) which could lead to a crankshaft failure.

The listed outboards must be repaired to avoid failure and assure customer satisfaction.

Outboards In The Original Shipping Crate - USA Dealers

Outboards that are still in their original shipping crates are to be returned directly to Fond du Lac for repair. Call Mercury Marine Outboard Technical Service for a Return Authorization (RA). Dealers are to return the outboards as soon as possible, freight collect, via Roadway Express 1-800-872-5225. Credit will be issued for each outboard returned when it is received in Fond du Lac. A replacement order will be immediately entered for each outboard returned at the original price.

Outboards In The Original Shipping Crate - Canadian Dealers

Dealers are to return the outboards as soon as possible, freight collect, to your local Distribution Center at Burnaby or Mississauga. Credit will be issued for each outboard returned when it is received at the Distribution Center. A replacement order will be immediately entered for each outboard returned at the original price.

Unused Outboards Out Of The Ship- ping Crate - USA/Canadian Dealers

Unused outboards (display units) may be re-boxed in either the original crate or in the crate from a new replacement same model outboard. These re-boxed units may be returned the same as "Outboards In The Original Shipping Crate". Credit will be issued for each outboard returned providing it is undamaged and all the original hardware is included in the packaging.

Used Outboards - USA/Canada

Outboards that are sold to customers are to be repaired by the dealer. Dealers are asked to contact customers of sold units to bring their outboard in for repair as soon as possible.

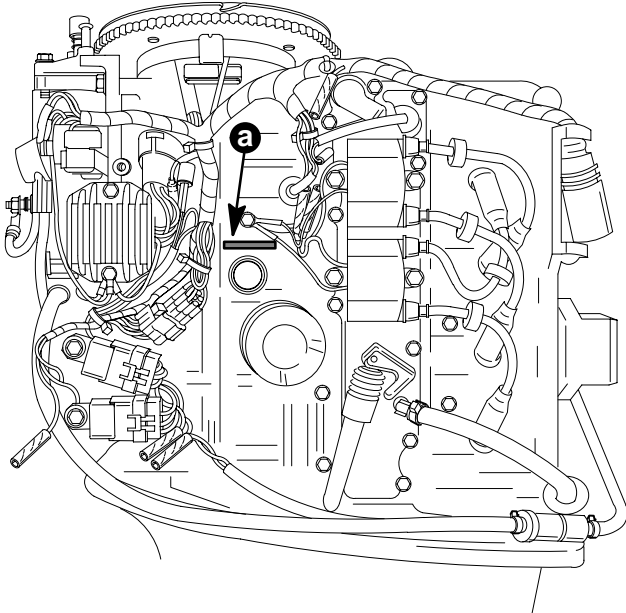
Owner Notification - USA/Canada

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 replacement of the crankshaft assembly. 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 red dot sticker applied on the outboard serial number label of the shipping carton.
- A red dot or marking painted on the port side of the powerhead (Figure 1).



a - Red Paint Marking

Figure 1. 45/50 4-Stroke Rework Marking

Correction

IMPORTANT: Refer to outboard service manual for proper crankshaft/powerhead short block replacement procedures.

FOR CRANKSHAFT REPLACEMENT

IMPORTANT: Check main bearing and connecting rod bearing clearances, as outlined in service manual. Replace bearings as required. Engines with more than 100 hours of operation, will require both main bearing and connecting rod bearing replacement.

NOTE: Pistons/connecting rods should remain in their cylinder bores to avoid piston ring replacement.

Replace crankshaft assembly, upper and lower crankshaft oil seals and powerhead to adaptor plate gasket as outlined in the outboard service manual. Apply a red dot or red paint marking on repaired powerhead as shown in (Figure 1).

FOR POWERHEAD SHORT BLOCK REPLACEMENT

NOTE: A powerhead short block assembly will not include a cylinder head assembly. Existing cylinder head **MUST BE** retained for reassembly.

Replace powerhead short block assembly, cylinder head gasket and powerhead to adaptor plate gasket, as outlined in the outboard service manual. Apply a red dot or red paint marking on replacement powerhead as shown in (Figure 1).

USA – Use Quick-fax (800-842-4550) or call Mercury/Mariner Outboard Service at (414-929-5884) for a pre-authorized warranty to replace the powerhead short block assembly.

CANADA – Use Quick-fax (800-663-8334) or call Mercury Marine Service/Warranty (905-270-4481).

INTERNATIONAL – Call your area office.

Warranty

Complete a warranty claim listing:

- Outboard serial numbers(s)

FOR CRANKSHAFT REPLACEMENT

- Qty 1 p/n 2406-831279A1 Crankshaft
- Qty 1 p/n 26-825027 Oil Seal, Upper Crankshaft
- Qty 1 p/n 26-825028 Oil Seal, Lower Crankshaft (s/n 0G324238 and Below)

or

- Qty 1 p/n 26-832013 Oil Seal, Lower Crankshaft (with raised rib of O.D. s/n 0G324239 and Above)
- Qty 1 p/n 27-825231 Gasket, Powerhead to Adaptor Plate
- Qty 3 p/n 92-828000A1 Quicksilver 4-Stroke Outboard Oil (1 L Bottle)
- Qty 1 p/n 35-822626A2 Oil Filter
- 6 hours labor
- Flat Rate Code: NJC
- Failure Code: 405-00

**FOR POWERHEAD SHORT BLOCK ASSEMBLY
REPLACEMENT**

- Qty 1 p/n 61-822775A97 Powerhead Assembly
- Qty 3 p/n 92-828000A1 Quicksilver 4-Stroke Outboard Oil (1 L Bottle)
- 4 hours labor
- Flat Rate Code: CP51
- Failure Code: 405-00

USA: Return crankshaft or powerhead short block assembly with a copy of the warranty claim.

Canada: Return crankshaft or powerhead short block assembly with a copy of the warranty claim to Mercury Marine Mississauga.

International: Tag and hold crankshaft/powerhead short block assembly for inspection/disposal by a Mercury Marine International Technical Representative.



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 you own a Mercury/Mariner outboard that may contain a defective crankshaft. We discovered this possibility through our rigorous endurance testing procedure. If the crankshaft fails, your engine will not operate.

While an immediate failure is unlikely unless you use your boat heavily, you should make arrangements as soon as possible to have this taken care of. You should also avoid any situations where an engine failure would put you in danger.

WHAT YOU SHOULD DO

Contact your authorized dealer, preferably the one who sold you your engine, and make an appointment to have them perform the service described in Service Bulletin 96-11. Then, deliver your boat and this letter to the dealer at the appointed time.

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 this recall may have caused you. However, we have taken 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