# MerCruiser Service Bulletin



▲= Revised August 2003. This bulletin supersedes the previous bulletin 2001-6 April 2001

# ▲Required 496 MAG / 496 MAG HO / 8.1S / 8.1S HO Push Rod Replacement

# Models

#### MCM 496 MAG Sterndrive Engines

S/N's 0M061079, 0M061080, 0M061118, 0M061225, 0M061274, 0M061317, 0M061319, 0M061325, 0M061531, 0M061588, 0M061600, 0M061602, 0M061603, 0M061627, 0M061664, 0M061676, 0M061845, 0M061866, 0M061883, 0M061912

#### MCM 496 MAG HO Sterndrive Engines

S/N 0M025976 – 0M025985 & S/N 0M061091 – 0M061773

#### MIE 8.1 S Inboard Engines

S/N's 0M026649, 0M026650, 0M026654, 0M026666, 0M026676, 0M026677, 0M026715, 0M026717, 0M026718, 0M026719, 0M026723, 0M026754, 0M026755, 0M026765, 0M026766, 0M026769, 0M026772, 0M026773, 0M026778, 0M026782, 0M026787, 0M026804, 0M026843, 0M026869, 0M026870, 0M026888, 0M026908, 0M026909, 0M026917, 0M026932, 0M026937, 0M026940, 0M026941, 0M026943, 0M027025, 0M027040, 0M027053, 0M027054, 0M027055, 0M027058, 0M027061, 0M027067, 0M027072, 0M027075, 0M027118, 0M027119, 0M027121, 0M027122, 0M027124, 0M027125, 0M027135, 0M027137, 0M0271138, 0M027142, 0M027160, 0M027180, 0M027183, 0M027184

#### MIE 8.1S HO Inboard Engines

S/N 0M026663 - 0M027049

## Situation

A machining operation was omitted on the intake and exhaust valve push rods used in the above listed engines. This situation can cause the push rods to fail due to interference with the rocker arm.

# **Correction / Inspection**

All straight intake and exhaust valve push rods must be replaced with new push rods that have a machined taper on each end.

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If a white mark is visible on the brass fitting on the top port side of the heat exchanger that connects the hose from the heat exchanger to the overflow bottle, the engine has been previously repaired at the factory. If a mark is not visible on this fitting, verify via MercNET.

#### Removal

IMPORTANT: Place rocker arm assemblies in a rack for reassembly in their original locations.

- 1. Remove rocker arm covers.
- 2. Examine pushrods.
  - Tapered Design If tapered reinstall the rocker cover (see installation step 4)



• Straight Design - If straight, replace all pushrods



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IMPORTANT: The rocker arm cover gaskets may be reused if not removed from the rocker arm covers.

**NOTE:** When servicing all rocker arms, bring No. 1 piston up to TDC before removing rocker arms.

3. Remove rocker arm assemblies and push rods.



4. Inspect all contact surfaces for wear. Replace all damaged parts.

Installation

IMPORTANT: When installing rocker arms and rocker arm balls, coat bearing surfaces of rocker arms and rocker arm balls with new engine oil.

IMPORTANT: The exhaust valve push rods are longer than the intake valve push rods.

1. Install new push rods. Be sure push rods seat in lifter socket.

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2. Install rocker arm assemblies in their original locations.



3. Torque rocker arm nuts slowly to 25 Nm (19 lb-ft).

**NOTE:** Valve lash is automatically set when rocker arm nuts are torqued to 25 Nm (19 *lb-ft*).

4. Install rocker arm cover. Torque bolts to 12 Nm (106 lb-in).

## Part Required

P/N 881682A1 (Qty. 1) Intake valve push rod set P/N 881683A1 (Qty. 1) Exhaust valve push rod set P/N 27-46820 (Qty. 2) Exhaust manifold to cylinder head gasket If parts are damaged or worn: P/N 27-881622 Rocker arm cover gasket P/N 881687 Rocker arm

# Warranty

Mercury Marine will credit the dealer for the cost of labor through August 31, 2006. Submit warranty claim through your normal warranty-processing channel, listing:

• Mercruiser serial number.

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Inspection Only

- Flat Rate Codes and Labor MX16 1.5 For Each Manifold and EXCP 1.0
- Part Code 423
- Fail Code 40

Push Rod Replacement

- Flat Rate Codes and Labor MX16 1.5 For Each Manifold and MM 72 2.0
- Part Code 423
- Failure Code 40

Old Part or Parts:

- USA and Canada: Return with warranty claim
- International: Follow instructions issued by your Marine Power International office or by your distributor.

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