

Circulate to: Sales Manager Accounting Service Manager Technician Parts Manager

Verado L6 Integrated Oil Module Inspection and Repair

Scope

Worldwide

Models Affected

Models Covered	Serial Number
225/250/300/350 Verado L6	USA - 1B829209–1B889461
225/250/300/350 Verado L6	Belgium - 0P568238–0P575810

Situation

Mercury Marine has received isolated complaints of engine oil leaks on outboards listed above due to movement of the rubber end sheet inside the integrated oil module. Mercury Marine has improved the retention method for the rubber end sheet. Engines without this improved rubber end sheet retention method may exhibit an engine oil leak.

NOTE: For MercNET customers: A video demonstration is available on MercNET. It is located under the "Resources" tab in the "Handy Tools" section of MercNET. Locate the "Service" column and select "Service Tech Videos." Please pick the appropriate heading for the content covered in this bulletin.

NOTE: For customers served out of Belgium: A video demonstration is available on the Extranet Download Center/Service Bulletins/Outboard/sob-12-04 video - Verado L6 Integrated Oil Module Inspection and Repair.

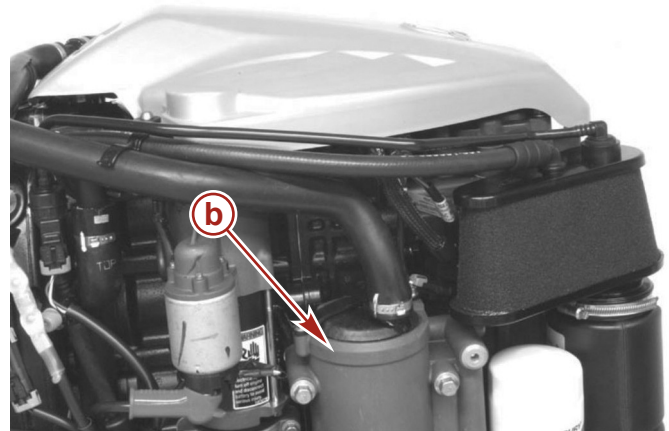
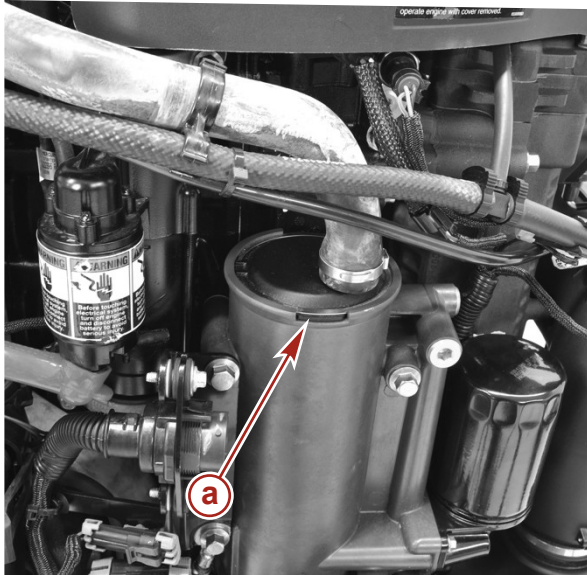
NOTE: While completing this service bulletin use proper personal protective equipment (PPE).

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Inspection

1. Inspect the housing for a machining slot. If the integrated oil module (IOM) does not have a machining slot as indicated in the right-hand picture below, no further action is required. If the IOM does have a machining slot as indicated in the left-hand picture below, and has a serial number below MC13151702, continue to the correction procedure outlined following. If the IOM serial number is MC13151702 or above no further action is required.



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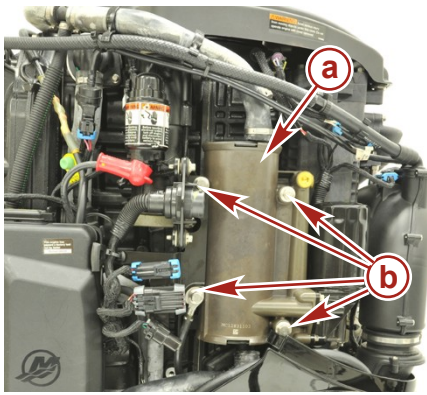
- a - Machining slot
- b - No machining slot
- c - IOM serial number (MC_ _ _ _ _)

2. Following the service manual procedure, remove the IOM from the engine.

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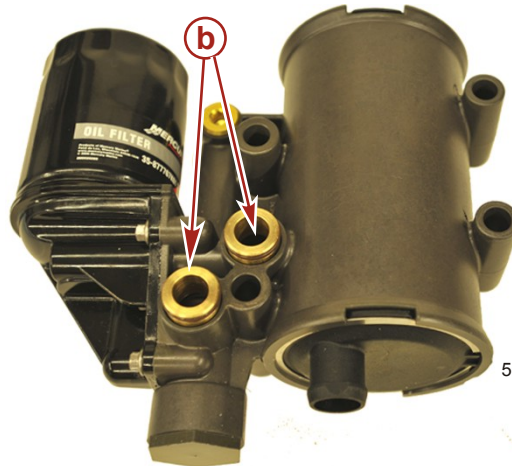
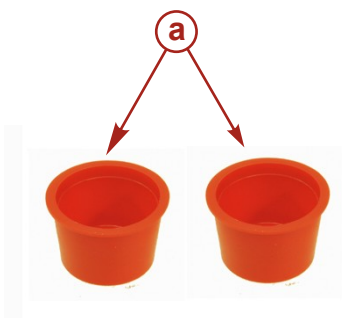
NOTE: If the engine was recently run, allow the engine to sit for one hour so the engine oil drains back to the sump.



- a - IOM
- b - IOM mounting bolts

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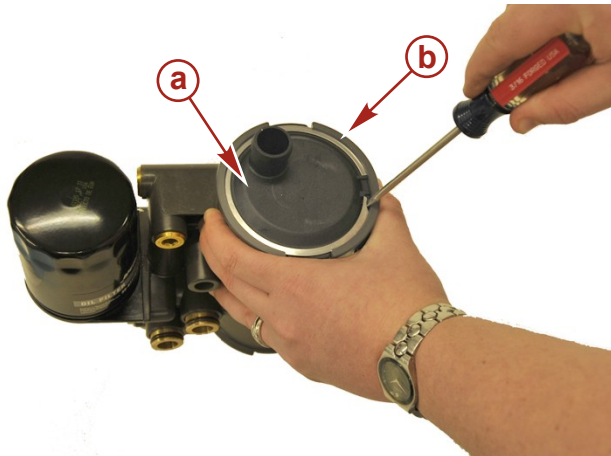
3. Temporarily install the red caps provided in the IOM coining tool kit over the adapter tubes to keep debris out, and to capture any residual engine oil inside of the IOM.



- a - Adapter tube cap
- b - Adapter tube

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4. Remove the retaining rings that hold the IOM end caps in place. Remove the IOM end caps.



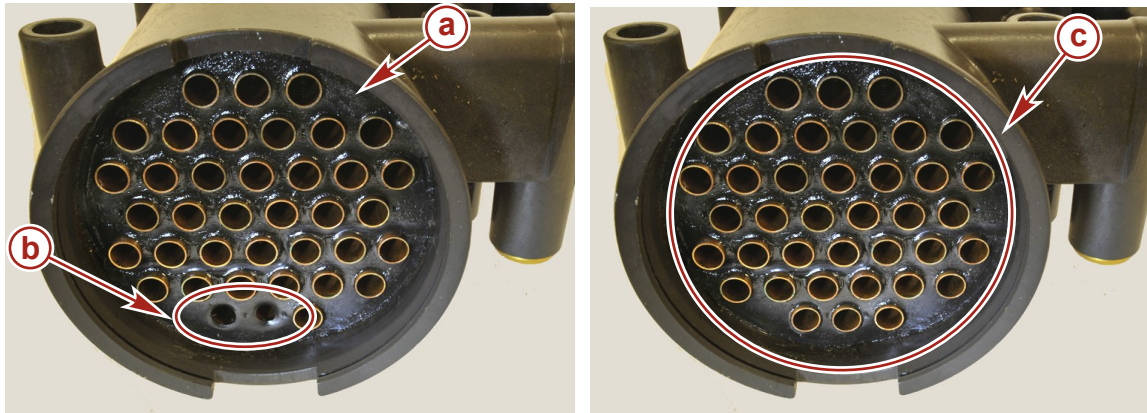
- a - IOM end cap
- b - Retaining ring

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5. Inspect the rubber end sheet for signs of movement. If the rubber end sheet has not moved above the cooling stack tubes, proceed to the **Correction** section. If the rubber end sheet has moved above the cooling stack tubes, contact Mercury Technical Service at 920-929-5884 for further instruction. If the IOM is replaced, record the IOM serial number in the warranty claim text.



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- a - Rubber end sheet
- b - Cooling stack tubes below rubber end sheet
- c - Cooling stack tubes above rubber end sheet

Correction

1. Place the IOM coining support spacer under one end of the IOM.



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- a - IOM coining support spacer

2. Using the IOM coining tool, coin all of the cooling stack tubes on both ends of the IOM. Take special care to ensure that all tubes are properly coined.

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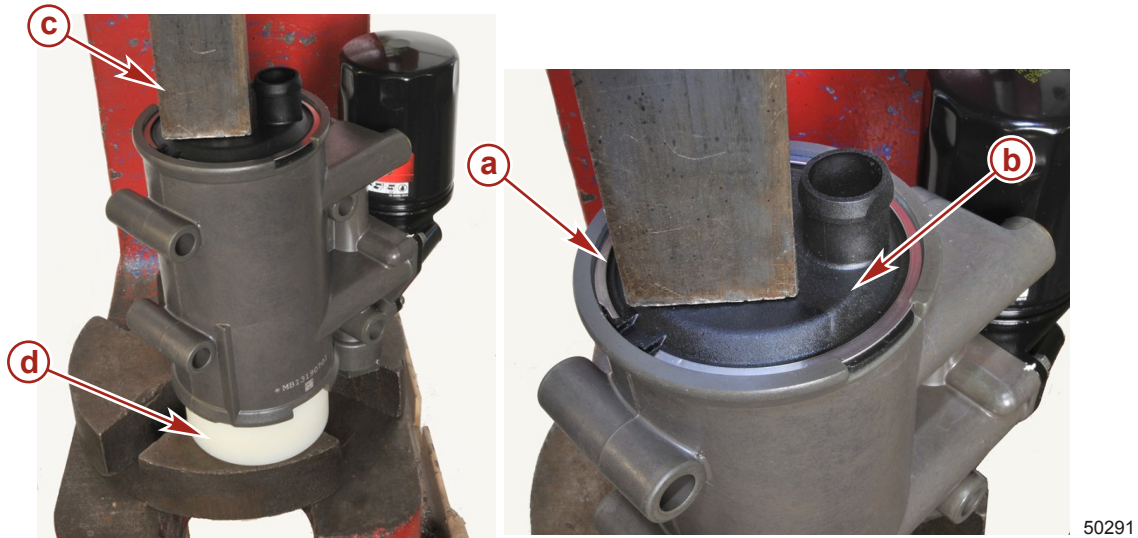
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NOTE: Some debris will be created as part of the coining process.



- a** - Coining tool
- b** - Brass hammer
- c** - Improperly coined tubes
- d** - Properly coined tubes

3. Using tap water, flush all debris out of the IOM that was created during the coining process.
4. Using an arbor press or a hand clamp, install the new IOM end caps and reuse the retaining rings. Pay special attention to the retaining ring and IOM end cap orientation.



- a** - Retaining ring
- b** - IOM end cap
- c** - Arbor press
- d** - IOM coining support spacer

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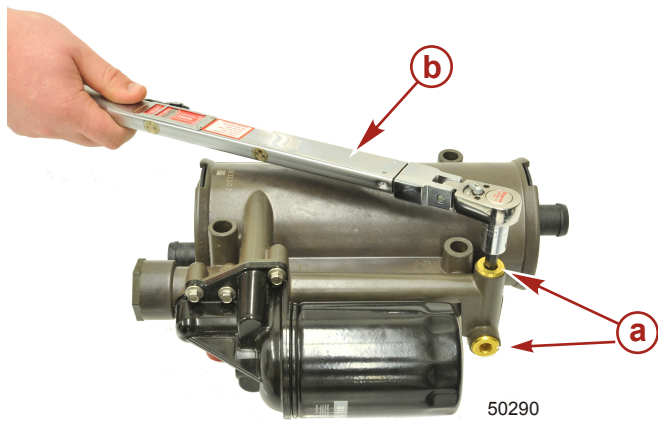
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- a - Upper end cap cooling water hose barb orientated towards the front
- b - Lower end cap cooling water hose barb orientated towards the rear

5. Loosen the Zero-Leak® plugs one full turn, then tighten the plug to the specified torque.

NOTE: If servicing Verado L4 and L6 engines below serial number 1B920276/0P570512 that are built with this style IOM and are outside the scope of this bulletin, loosen the plugs as indicated above and tighten to the specified torque. After tightening to the specified torque, mark the IOM with a white paint dot as indicated in step 9.



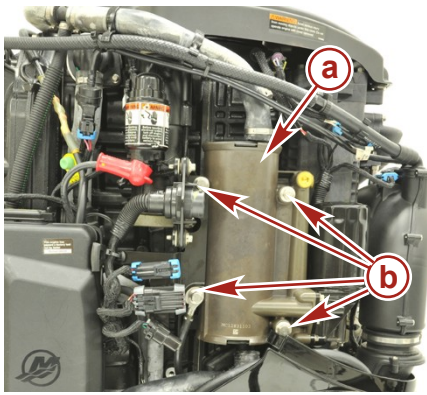
- a - Zero-Leak® plug
- b - Torque wrench

Description	Nm	lb-in.	lb-ft
Zero-Leak® plug	10	89	7.4

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- After removing the adapter tube caps, follow the service manual procedure to install the IOM.



- a - IOM
- b - IOM mounting bolts

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- Check engine oil level. If engine oil is low, fill as required.
- Using an engine flushing attachment, start the engine and check for engine oil and/or cooling water leaks. If leaks are found, repair as required.
- After a successful test run, degrease the IOM body and place a white paint dot on the side of the IOM above the IOM serial number indicating that the IOM has been inspected and reworked.



- a - Identifying mark

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- Record the IOM serial number. When completing the warranty claim, place this serial number in the claim text box.



- a - IOM serial number (MC_ _ _ _ _)

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Parts Required

Qty.	Description	Part Number
1	IOM end cap kit	8M0065672

Special Tools Required

Qty.	Description	Part Number
1	Tool kit IOM coining	8M0065149

Owner Notification

A letter will be sent to every registered owner of an affected outboard. The letter will advise the owner to return the outboard to their selling dealer or any Mercury Outboard authorized dealer for the repair. As a selling or servicing dealer, you should also contact your customers to make them aware of this recall and to schedule an appointment for this repair. A copy of the customer letter is included with this service bulletin for your reference.

Dealer Inventory

Engines that are in your inventory should be inspected and reworked prior to delivery to a customer.

Warranty

Complete the warranty claim listing for units requiring repair:

- Outboard serial number
- Labor: 1.5 hours
- Warranty flat rate code: SB10 and SB05
- Part failure code: 779
- Failure code: 40
- IOM serial number
- Qty. 1 per dealer account P/N 8M0065149 tool kit

Complete the warranty claim listing for units requiring inspection:

- Outboard serial number
- Labor: 0.5 hours
- Warranty flat rate code: SB05
- Part failure code: 779
- Failure code: 00
- IOM serial number

Mercury Marine will credit the dealer for the cost of parts and labor during the engine warranty period.

U.S. and Canada

Complete and process the claim via MercNET or return a warranty claim.

International

Follow instructions issued by the Marine Power International office or by an authorized Marine Power Distributor.

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Dear Mercury Outboard Owner:

Thank you for your purchase of a Mercury Verado outboard engine. Mercury Marine is dedicated to providing superior product reliability and customer satisfaction. As part of our commitment to superior customer satisfaction, we have determined that your outboard must be recalled so that we can perform an inspection of the integrated oil module.

What is the condition?

Mercury Marine has determined that the integrated oil module of your outboard may not have been properly sealed. The outboard may develop an engine oil leak under certain conditions.

What will Mercury Marine do?

We have provided instructions to our dealers on the proper method of inspecting and repairing these outboards if required.

What should you do?

Please contact your Mercury Outboard dealer and mention Outboard Service Bulletin 2012-04 to schedule an appointment to have this inspection performed on your outboard. Your dealer will be able to determine how long this inspection and correction will take.

Please present this notice to your dealer when you bring your engine in for your service appointment.

What if you have other questions or if you no longer own this engine?

Please contact your Mercury Outboard dealer or call Mercury Outboard Customer Service at 1-920-929-5040 between 7:30 AM and 5:30 PM CST.

We have sent this notice in the interest of your continued satisfaction with our product, and we sincerely regret any inconvenience this may cause you.

Thank you for boating with Mercury Marine

Mercury Marine Service

Dear Mercury Outboard Owner:

Thank you for your purchase of a Mercury Verado outboard engine. Mercury Marine is dedicated to providing superior product reliability and customer satisfaction. As part of our commitment to superior customer satisfaction, we have determined that your outboard must be recalled so that we can perform an inspection of the integrated oil module.

What is the condition?

Mercury Marine has determined that certain integrated oil modules on a limited number of Verado outboards may not have been properly sealed. The outboard may develop an engine oil leak under these conditions.

What will Mercury Marine do?

We have provided instructions to our dealers on the proper method of inspecting and repairing these outboards if required.

What should you do?

You may inspect your own engine by removing the top cowl and inspecting the rim of the integrated oil module. Suspect integrated oil modules will have a machining slot in the rim as shown on the following page.

Please see the attached document for the inspection procedure.

If your integrated oil module has a machining slot in the rim, please contact your Mercury dealer to schedule an appointment for inspecting the integrated oil module.

If you are not comfortable with the above inspection procedure, please contact your Mercury Outboard dealer and mention Outboard Service Bulletin 2012-04 to schedule an appointment to have this inspection performed on your outboard. Your dealer will be able to determine how long this inspection/correction will take.

Please present this notice to your dealer when you bring your engine in for your service appointment.

What if you have other questions or if you no longer own this engine?

Please contact your Mercury Outboard dealer or call Mercury Outboard Customer Service at 1-920-929-5040 between 7:30 AM and 5:30 PM CST.

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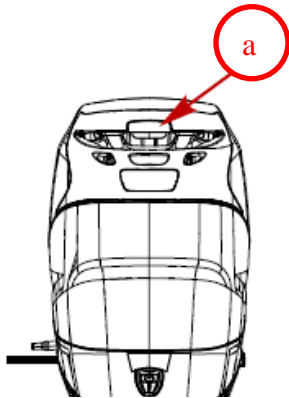
Thank you for boating with Mercury Marine

Mercury Marine Service

Inspection

Trim the engine to the vertical position and remove the top cowl. The integrated oil module is located on the starboard side of the engine.

- 1.) Pull up on the top cowl latch lock.
- 2.) Pull top cowl forward and lift off.



a.) Top cowl latch lock

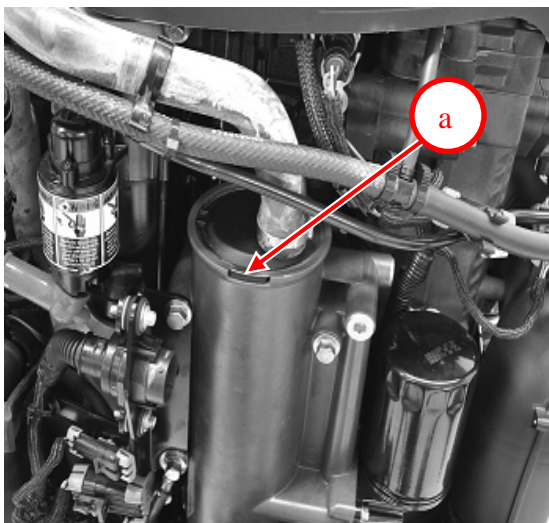


b.) Integrated oil module

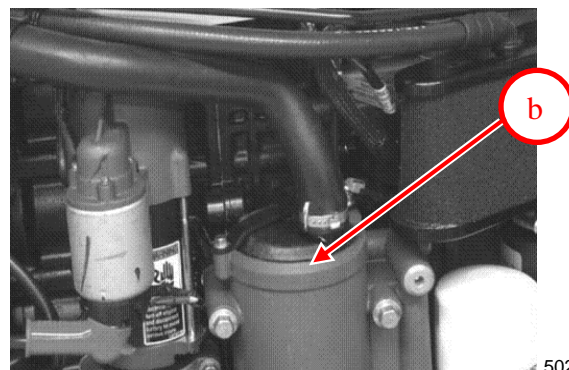
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3.) If your integrated oil module has a machining slot in the rim as shown in the photo on the lower left, please contact your Mercury dealer to schedule an appointment for repair of the integrated oil module.

If your integrated oil module looks like the unit pictured on the lower right with no machining slot, there is no need for any further inspection or rework.



a.) Machining slot



b.) No machining slot

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