

Technical BULLETIN

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2003 ~ 2004 3.3L HPDI MODELS

Excessive Oil Consumption and Spark Plug Fouling

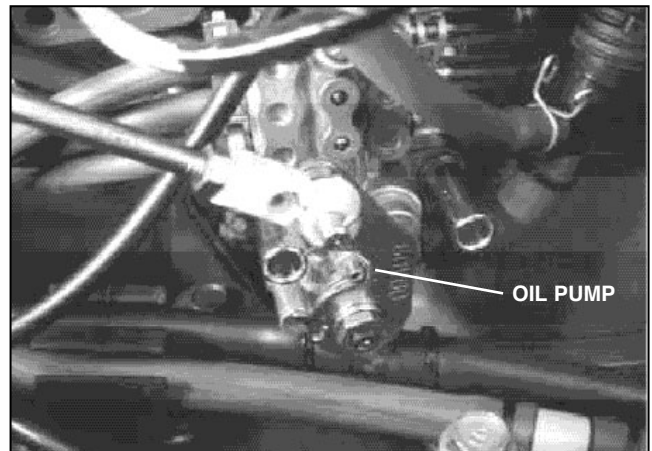
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INTRODUCTION

Symptom: Excessive oil consumption and spark plug fouling even after the modifications of O2003-003 and O2003-004 have been performed.

Cause: The ECM control of the electric oil pump switches to "High" too soon, and the mechanical oil pump may have premature wear leading to increased oil delivery.

Remedy: Replace the mechanical oil pump, ECM, spark plugs and spark plug specification sticker per the *Service Procedure* section (on page 2) of this bulletin.



DEALER ACTION SUMMARY

Unsold Units:

At Predelivery Inspection (PDI), inspect all units in the affected range. A white paint mark on the top starboard corner of the intake air box indicates a unit which has already been reworked (see *Identification Procedure* section on page 5). If no paint mark is present on the top starboard corner of the intake air box, proceed with the *Service Procedure* section on page 2.

Sold Units: All registered owners will receive a letter with regards to this bulletin (see page 6 for a sample). When the customer comes in for service, make sure all previous issues (O2003-003 and O2003-004 bulletins) have been addressed and all other running systems are running properly. Once back issues have been verified, replace the parts described in this bulletin. In addition, make sure each customer receives one case of Yamalube® 2-M gallons when they present their letter from Yamaha.

Parts

Required: Yes, one replacement kit per engine and one case of Yamalube® 2-M gallons (see *Parts Information* section, page 5).

Warranty: Submit a Service-Per-Bulletin (90 Code) Warranty Request.



AFFECTED RANGE

| | | | |
|----------------|-------------------------|----------------|------------------------|
| 2003: Z250TXRB | 60VX-1000001 ~ 1002361 | 2004: Z250TXRC | 60VX-1002362 ~ 1002754 |
| Z250TURB | 60VU-1000001 ~ 1002412 | Z250TURC | 60VU-1002413 ~ 1002754 |
| LZ250TXRB | 60WX-1000001 ~ 1001036 | LZ250TXRC | 60WX-1001037 ~ 1001207 |
| LZ250TURB | 60WU-1000001 ~ 1001060 | LZ250TURC | 60WU1001061 ~ 1001207 |
| VZ250TLRB | 60XL-1000001 ~ 10000598 | VZ250TLRC | 60XL-1000599 ~ 1000738 |
| VZ225TLRB | 60YL-1000001 ~ 1000825 | VZ225TLRC | 60YL-1000826 ~ 1001031 |



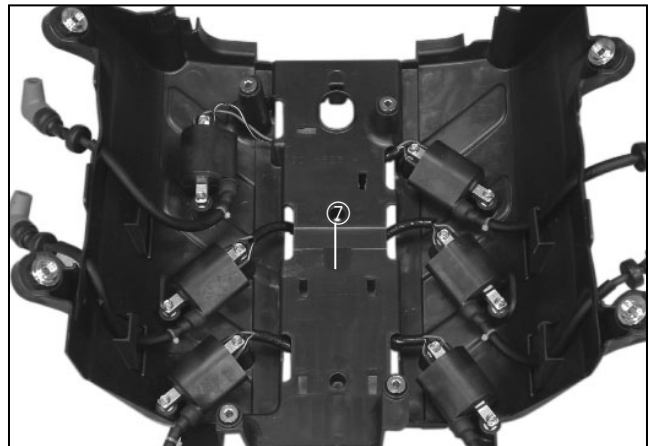
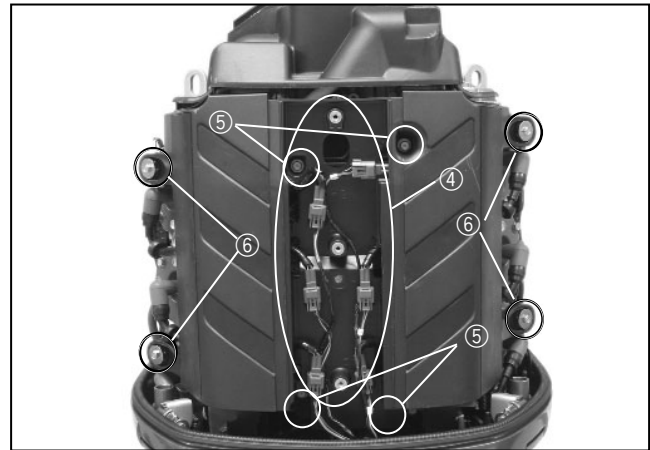
SERVICE PROCEDURES

Perform the following procedures:

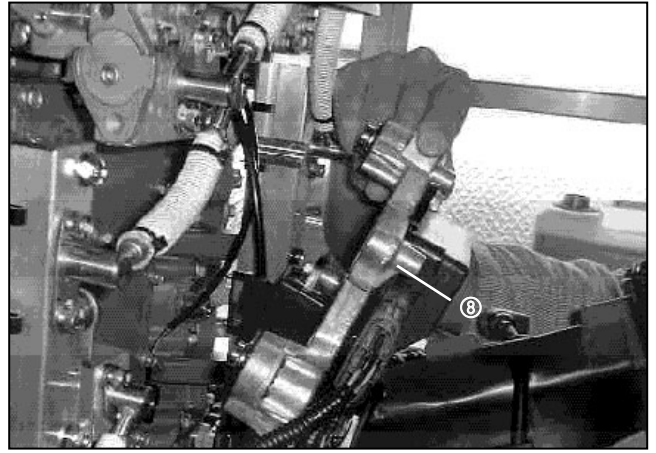
ECM Replacement

1. Remove the cowl and the spark plug caps from the spark plugs ①.
2. Remove the three bolts ② from the center cover, then remove the center cover ③.
3. Disconnect the ignition coil couplers ④ and remove the harness holders from the cover.
4. Remove the four inside bolts ⑤ and four outside bolts ⑥ from the ignition coil cover.
5. Remove the ignition coil cover ⑦.

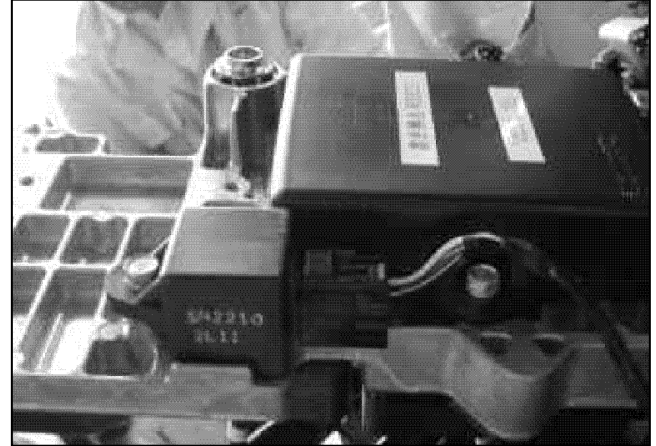
NOTE: The coil leads to cylinders #5 and #6 are secured to the wire harness by clips.



6. Remove the bracket ⑧ that supports the injector drivers and ECM.

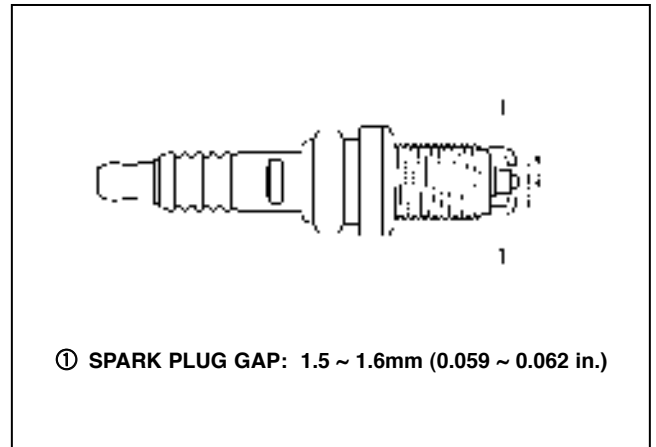


7. Remove the ECM from behind the bracket (see adjacent photo).



8. Install the new ECM and reassemble.

9. Before reattaching the spark plug caps, replace old spark plugs with the new ones provided in the kit (see adjacent illustration for spark plug gap specification ①).



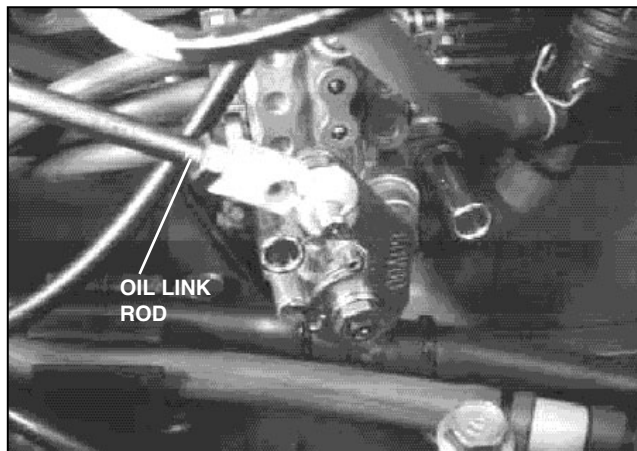
10. Remove and replace the spark plug specification sticker with the new sticker provided in the kit (see adjacent photo).

NOTE: Make note of the new spark plug type (NGK BKR6EKU) on page 4-1 or 4-2 of the appropriate Owner's Manuals.

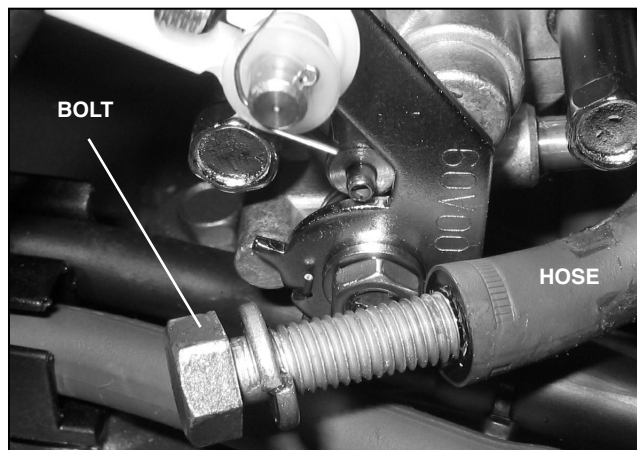


Oil Pump Replacement

1. Remove the oil link rod from the oil pump (see adjacent photo).
2. Remove the clip from the oil tank supply hose, then remove the hose.

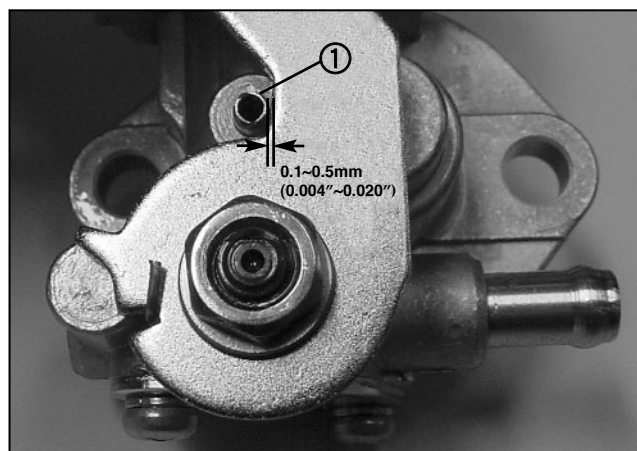


3. Insert a bolt into the hose to prevent oil from spilling (see adjacent photo).
4. Remove the six clips and hoses from the oil pump.
5. Remove the two bolts that secure the oil pump and remove the pump.
6. Install the new oil pump and reassemble.



NOTE: Follow the Z250 Service Manual (LIT-18616-02-43) procedure for oil pump installation and bleeding.

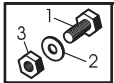
7. Set the oil link rod gap ① to 0.1mm ~ 0.5mm (0.004" ~ 0.020") (see adjacent photo).
8. After replacement and proper adjustment of the new oil pump, place a white paint mark on the top starboard corner of the intake air box (see *Identification Procedure* section, page 5).





IDENTIFICATION PROCEDURE

After the Service-Per-Bulletin procedure has been completed, place a white paint mark on the top starboard corner of the intake air box (see adjacent photo).



PARTS INFORMATION

One kit per applicable model engine.

| Part Number | Description | Qty. | Dealer Cost |
|----------------|---|---------------------------|-------------|
| 90891-40445-00 | Z250 Oil Pump Replacement Kit • ECM (60V) • Oil Injection Pump Assy. • Spark Plug • Spark Plug Specification Sticker | 1 Kit 1 1 6 1 | \$663.54 |
| 90891-40446-00 | VZ250 Oil Pump Replacement Kit • ECM (60X) • Oil Injection Pump Assy. • Spark Plug • Spark Plug Specification Sticker | 1 Kit 1 1 6 1 | \$663.54 |
| 90891-40447-00 | VZ225 Oil Pump Replacement Kit • ECM (60Y) • Oil Injection Pump Assy. • Spark Plug • Spark Plug Specification Sticker | 1 Kit 1 1 6 1 | \$703.91 |

NOTE: One case of Yamalube® 2-M gallons also needs to be ordered for each customer (P/N: ACC-Y2MTC-W3-04, Dealer Cost: \$48.68).



WARRANTY INFORMATION

Service of all affected units is authorized regardless of warranty status. To receive credit for parts and labor after completion, select **90SJ** OIL PUMP REPLACEMENT from the Problem Code pull-down menu in Yamaha Dealer System (YDS). If submitting a paper claim, submit a Service-Per-Bulletin Warranty Claim using Problem Code **90SJ**. The labor allowance for this modification is **2.8 hrs**. Reimbursement also includes the cost of one case of Yamalube® 2-M gallons that you gave to the customer.

August 19, 2003

Dear Yamaha Outboard Owner:

You demand the best – your choice of Yamaha’s top-of-the-line HPDI outboard power for your boat certainly proves that.

At Yamaha, we demand the best of ourselves, too. We hope that shows every time you use your outboard. That’s also why we are writing to you today.

While our award-winning HPDI outboards excel at out-of-the-hole acceleration and cruising, with superior performance and economy, some of our customers who operate frequently at trolling speeds have told us that their outboard uses too much oil at low rpm. That matches what we have learned in our own investigations.

Obviously, an outboard needs more oil during acceleration and at wide-open throttle than it does during idle and slow speed operation. We have determined that, on some of our HPDI outboards, the oil pump may deliver the “high-speed” amount of oil at certain lower speeds. Depending upon how you use your outboard, you may have encountered this.

If you have experienced this higher-than-expected oil consumption while trolling, we have good news for you. We have a new oil delivery system that solves this low-rpm over-oiling condition.

Please contact your authorized Yamaha Outboard dealer if you believe your outboard uses too much oil at low speeds. He will install new oil delivery system components **at no charge to you**. This also includes a fresh set of spark plugs of a new specification along with a new decal under the cowling specifying the updated spark plug type.*

In addition, you will receive a free case (4 gallons) of premium Yamalube 2-M from your dealer as our thanks for your understanding when you pick up your outboard after it has been modified. Please take this letter with you when you take in your outboard for service.

Best wishes for continued boating pleasure,

Customer Support Group
Yamaha Motor Corporation, U.S.A.

*** NOTE:**

Once your outboard has been modified, you should make note of the new spark plug type (NGK BKR6EKU) on page 4-1 or 4-2 of your Owner’s Manual.