

**Technical Bulletin: 2011-XXR**  
**2009~2011 VMX17YB, YCB, ZR, ZCR, AG, ACG**  
**Factory Modification Campaign: Oil Pump Failure**

**INTRODUCTION**

Yamaha Motor Corporation, U.S.A. has decided that a defect which relates to motor vehicle safety exists in certain 2009~2011 VMX17 motorcycles. On affected motorcycles, abnormally high oil pressure can build up inside the oil pump causing it to malfunction. If this happens, oil will stop pumping through the engine, resulting in severe engine damage that can cause the engine to stall and not restart again, resulting in the possibility of a crash with injury or death.

To correct this problem, Yamaha is initiating a Factory Modification Campaign. Affected units must have a new oil pump installed.

Yamaha is notifying all registered owners of affected motorcycles by mail. A copy of this letter is included in this bulletin. The customer should take the letter along with the affected motorcycle to an authorized Yamaha dealer for the modification.

A computer report listing all affected motorcycles invoiced to your dealership is included with this bulletin. Use the list to help ensure all motorcycles are modified. All sold motorcycles that have been registered with Yamaha will show the customer's name and address. Your dealership must notify the owner of any affected motorcycle that was actually sold but is listed as "unsold" in the report.

You must modify all affected motorcycles in your inventory as well as all customer-owned motorcycles brought to you for this service. Any affected motorcycle that you purchase from Yamaha in the future may also require modification. If you purchase a motorcycle from another dealer or Yamaha, check to see if the procedures in this bulletin have already been performed before you sell the motorcycle.

**Motorcycles that are affected should not be operated until they are modified. It is a violation of Yamaha policy for your dealership to deliver any affected motorcycles to customers until the procedures in this bulletin are performed.**

When the modification on each motorcycle is performed, follow the Warranty Information section of this bulletin to receive reimbursement. Be sure to use the Factory Modification Campaign procedures in Chapter 7 of the **Warranty and Y.E.S. Handbook** (LIT-11760-00-08).

**DEALER ACTION SUMMARY**

**Unsold Units:** Install a new oil pump.

**Sold Units:** Install a new oil pump. Check first to be sure the modification has not already been performed (see Identification Procedure section in this bulletin).

**Parts:** Yes, order a new oil pump kit for each affected unit. See the *Parts Information* section for details, including how to identify original and new oil pumps.

**Warranty:** Factory Modification Campaign. See the *Warranty Information* section of this bulletin. This modification applies to all affected units regardless of ownership or warranty status.

**Notify**

**Customer:** Yes. You must immediately contact any customer whose motorcycle shows as unregistered on the enclosed report. Yamaha has sent letters to customers whose motorcycles were registered for warranty as of xx/xx/xx.

**AFFECTED RANGE**

VMX17  
VP29E-0000013~0002047

VMX17C (California Specification)  
VP29Y-0000033~0000307

**SERVICE PROCEDURE:**

**SERVICE PROCEDURE:**

\*Oil pump replacement procedure does not require draining the engine oil.

**1. Preparation for disassembly:**

Clean any road debris from the right side engine cover (clutch cover) area of the engine.

Set the engine stop switch to the “” position.

Stand the vehicle on its side stand on a level surface.



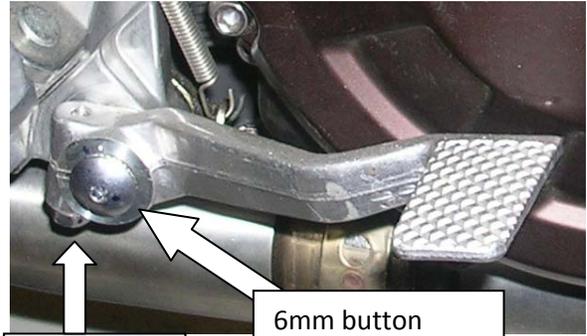
**2. Rear brake pedal removal:**

Remove 6mm button head bolt.

Remove 6mm flange bolt.

Remove brake pedal.

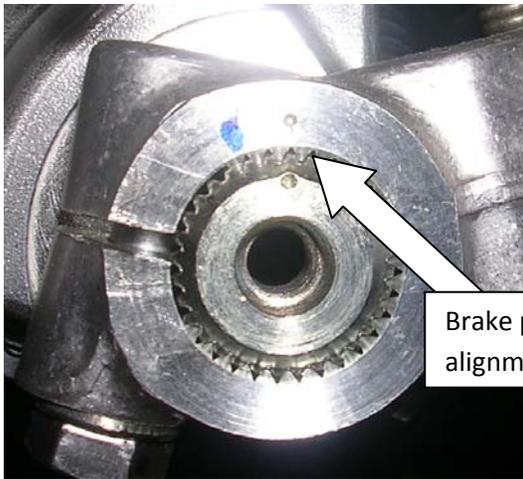
**Note:** The brake pedal and shaft have alignment punch marks that must be aligned during reassembly.



6mm flange head bolt

6mm button head bolt

**8 Nm (0.8 m·kgf, 5.8 ft·lbf) (both bolts)**



Brake pedal alignment punch

### 3. Clutch cover removal:

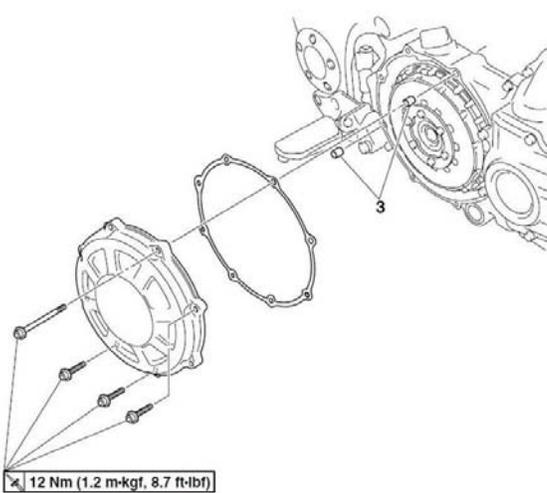
Remove right side crankcase cover (clutch cover) 6mm flange head bolts (qty. 8).

Remove right side crankcase cover (clutch cover).

Remove right side crankcase cover (clutch cover) alignment dowel pins (qty. 2).

Remove right side crankcase cover (clutch cover) gasket.

**NOTE:** Clean all traces of right side crankcase cover (clutch cover) gasket from the crankcase and cover.



### 4. Clutch assembly removal:

Remove clutch spring bolts (qty. 6).

Remove clutch spring plate retainer.

Remove clutch spring plate.

Remove clutch spring plate seat.

Remove pressure plate.

Remove short clutch push rod.

Remove ball.

Remove all clutch plates:

Friction plate (qty. 10).

Clutch plate 1 (qty. 1).

Clutch plate 2 (qty. 1).

Clutch plate 3 (qty. 7).

**NOTE:** Keep clutch plates in same order during removal to ease reassembly.

Clutch plate 1 is thicker than all other steel plates and has no dimples.

Clutch plate 2 may be different thickness than clutch plate 7. It is used to adjust clutch pack width and must be installed in the same position.

Remove clutch boss nut.

**NOTE:** Special tool, Clutch Holder Tool YM-91042, is required to hold the clutch boss during clutch boss nut removal and installation.

**NOTE:** Before loosening the clutch boss nut, you must first un-stake the folded collar of the clutch boss nut. Do this by inserting a tapered chisel between the folded collar and the main axle. Take great care during this process to prevent any damage occurring to the main axle.

Remove spring (qty. 3).

Remove clutch boss.

Remove clutch boss plate.

Remove conical spring washer.

**NOTE:** Orientation of conical spring washer must be reinstated in the same direction as removed.

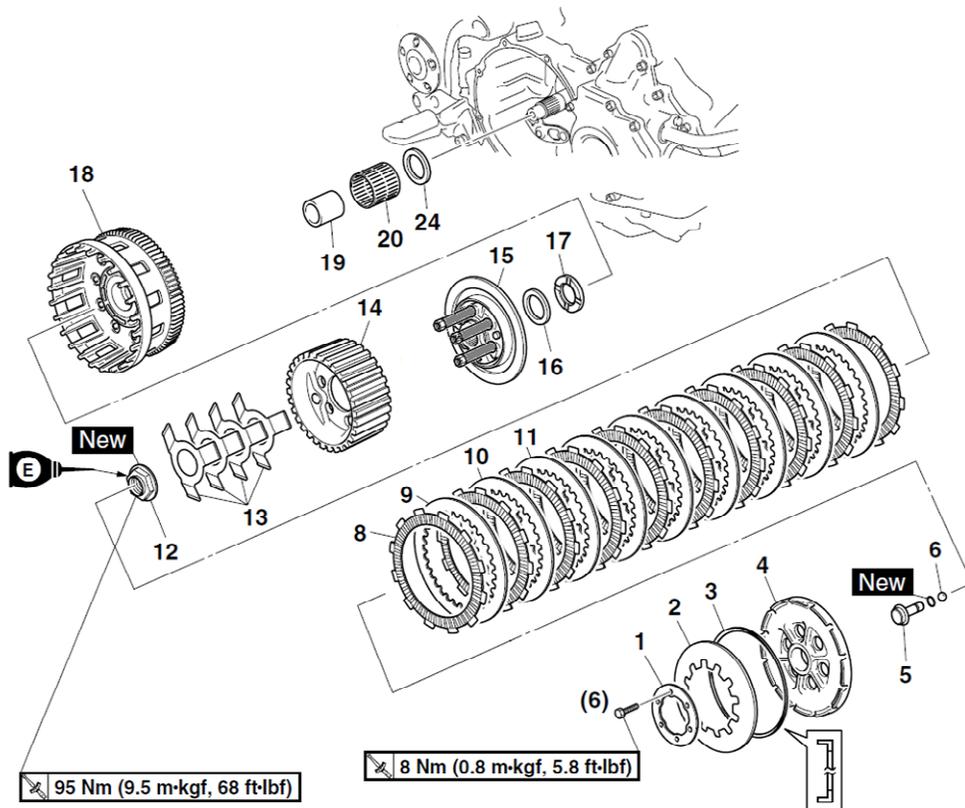
Remove thrust washer (with grooves on both sides).

Remove clutch housing.

Remove bearing.

Remove collar.

Remove thrust washer (smooth finish).



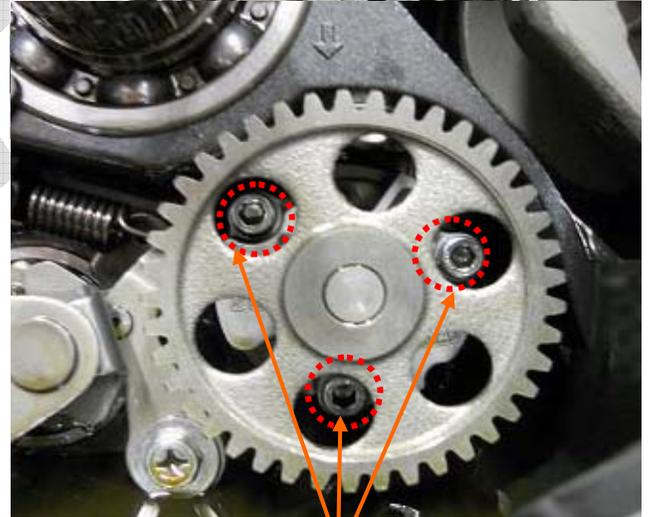
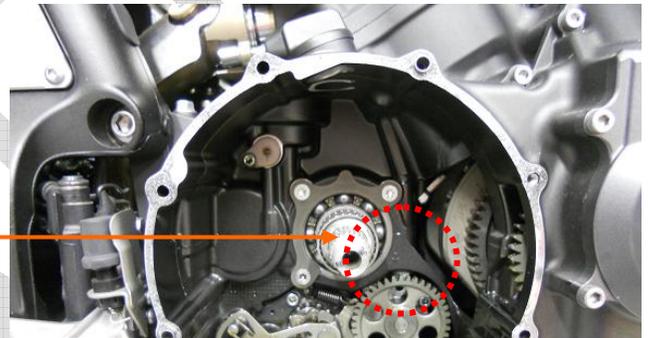
| Item | Description                  |
|------|------------------------------|
| 1    | Clutch spring plate retainer |
| 2    | Clutch spring plate          |
| 3    | Clutch spring plate seat     |
| 4    | Pressure plate               |
| 5    | Short clutch push rod        |
| 6    | Ball                         |
| 8    | Friction plate               |
| 9    | Clutch plate 1               |
| 10   | Clutch plate 2               |
| 11   | Clutch plate 3               |

| Item | Description           |
|------|-----------------------|
| 12   | Clutch boss nut       |
| 13   | Spring                |
| 14   | Clutch boss           |
| 15   | Clutch boss plate     |
| 16   | Conical spring washer |
| 17   | Thrust washer         |
| 18   | Clutch housing        |
| 19   | Collar                |
| 20   | Bearing               |
| 24   | Thrust washer         |

### 5.Oil pump assembly removal:

Remove the three mounting bolts of the oil pump assembly

Oil pump assembly



Oil pump fixation bolts



Remove the oil pump assembly.

## 6. Checking original oil pump condition:

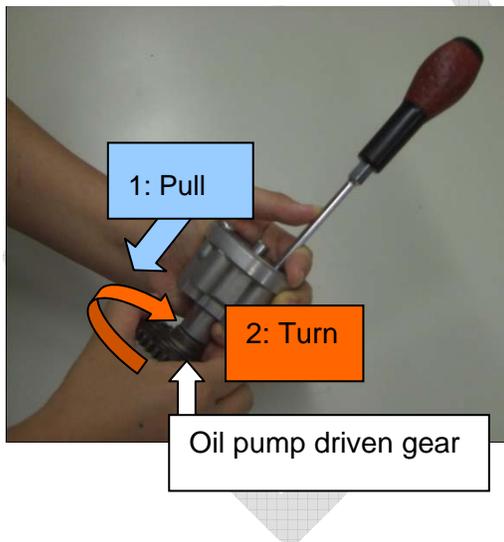
After removing the original oil pump, insert a Phillips screwdriver or 6mm bolt between the inner and outer rotors of the original oil pump to lock the inner rotor in place and prevent it from spinning.



Pull the oil pump driven gear outward as indicated below and rotate the oil pump driven gear.

If the oil pump driven gear can be rotated while the rotors are locked, this indicates that the pump has failed. Before continuing any further, please contact Yamaha Techline (RTA).

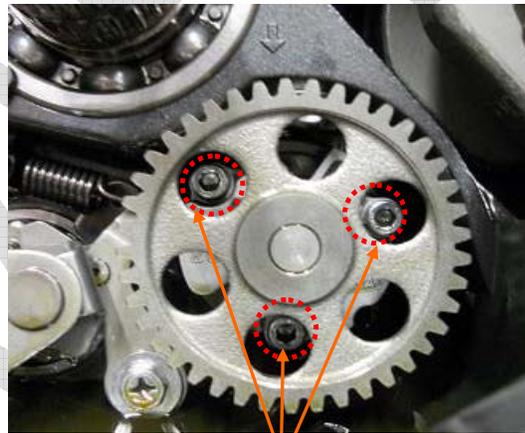
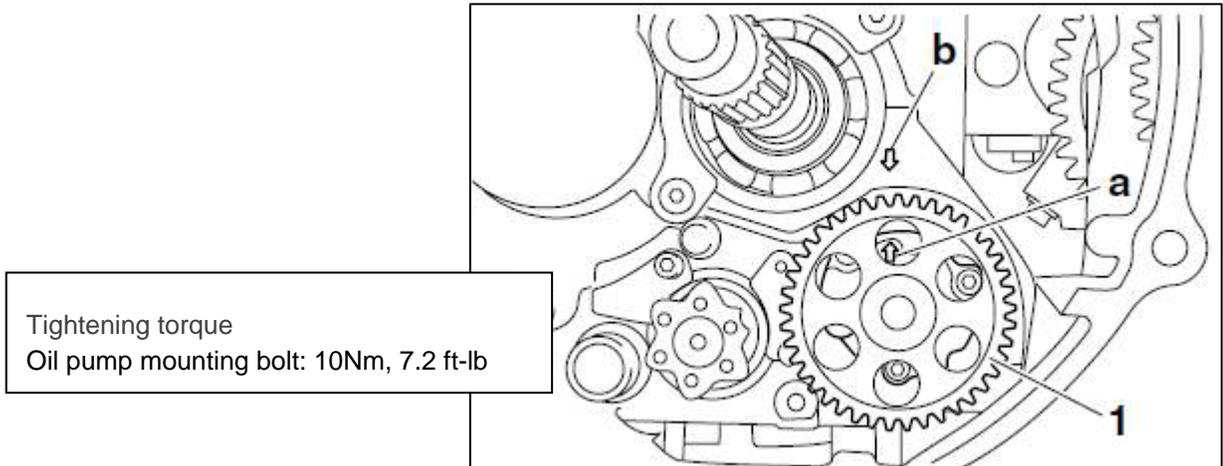
If the oil pump driven gear does not rotate while the rotors are locked, continue on with the service procedure #7.



## 7.Oil pump replacement:

Align the arrow mark “a” on the new oil pump assembly supplied in the oil pump kit with the arrow mark “b” on the crankcase and insert the new oil pump into the crankcase.

Install the bolts (qty. 3) previously removed in step #5 and torque to 10 Nm (1.0 m•kgf, 7.2 ft•lbf).



Oil pump fixation bolts

## 8.Clutch reassembly and installation:

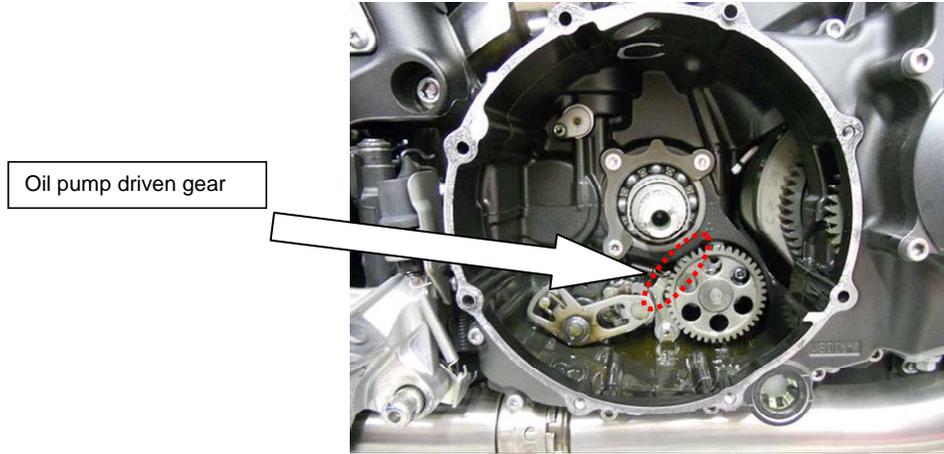
Assemble the clutch housing and related parts in reverse order as disassembled.

Install thrust washer (smooth finish).

Install collar.

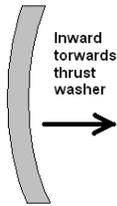
Install clutch housing.

**NOTE:** There is a drive gear for the oil pump assembly behind the primary driven gear on the clutch housing. Make sure the teeth for these gears mesh together correctly with the drive gear on the clutch housing during installation.



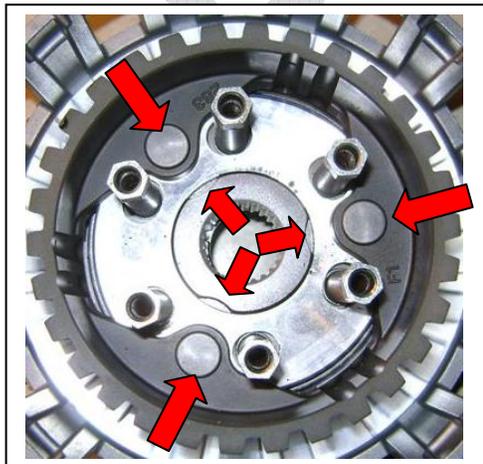
Install thrust washer (with grooves on both sides).  
Install conical spring washer.

**NOTE:** Orientation of conical spring washer must be reinstalled in the same direction as removed.



Install clutch boss plate.  
Install clutch boss.

**NOTE:** Make sure the 3 rivet heads on clutch boss plate are aligned with the 3 recesses on the clutch boss plate. This aligns the ramps for the torque limiter ramps of the boss and boss plate.



Install spring (qty. 3).

**NOTE:** Make sure the 3 springs tabs are not aligned with the rivets in the clutch boss.



Install the new clutch boss nut supplied in the oil pump kit and torque to 95 Nm (9.5 m•kgf, 68 ft•lbf).

**NOTE:** Lubricate the threads and shoulder of the clutch boss nut with engine oil.

**NOTE:** Make sure shoulder of clutch boss nut is aligned with center hole of 3 springs.

**NOTE:** Special tool, Clutch Holder Tool YM-91042, is required to hold the clutch boss during clutch boss nut installation.

**NOTE:** After tightening the clutch boss lock nut, you must stake the collar of the lock nut. Do this by tapping the folded collar into the groove in the main axle with a punch and hammer.

**NOTE:** Confirm the clutch boss rotates freely before installing clutch plates.

Install all clutch plates:

Friction plate (qty. 10).

Clutch plate 3 (qty. 7).

Clutch plate 2 (qty. 1).

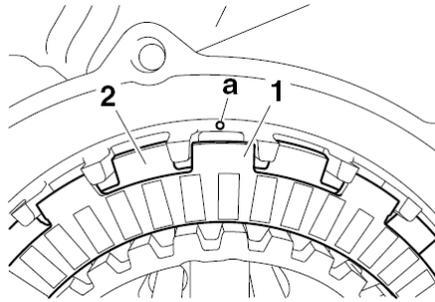
Clutch plate 1 (qty. 1).

**NOTE:** Keep clutch plates in same order as removed during removal.

Clutch plate 1 is thicker than all other steel plates and has no dimples.

Clutch plate 2 may be different thickness than clutch plate 3. It is used to adjust clutch pack width and must be installed in the same position it was removed.

Install the last friction plate “1” offset from the other friction plates “2”, making sure to align a projection on the friction plate with punch mark “a” on the clutch housing.



Install ball.

Install short clutch push rod.

**NOTE:** Remove original O-ring from short push rod and install new O-ring supplied in the oil pump kit onto short push rod before installation.

Lubricate new O-ring and short push rod with a light coating of lithium soap base grease.

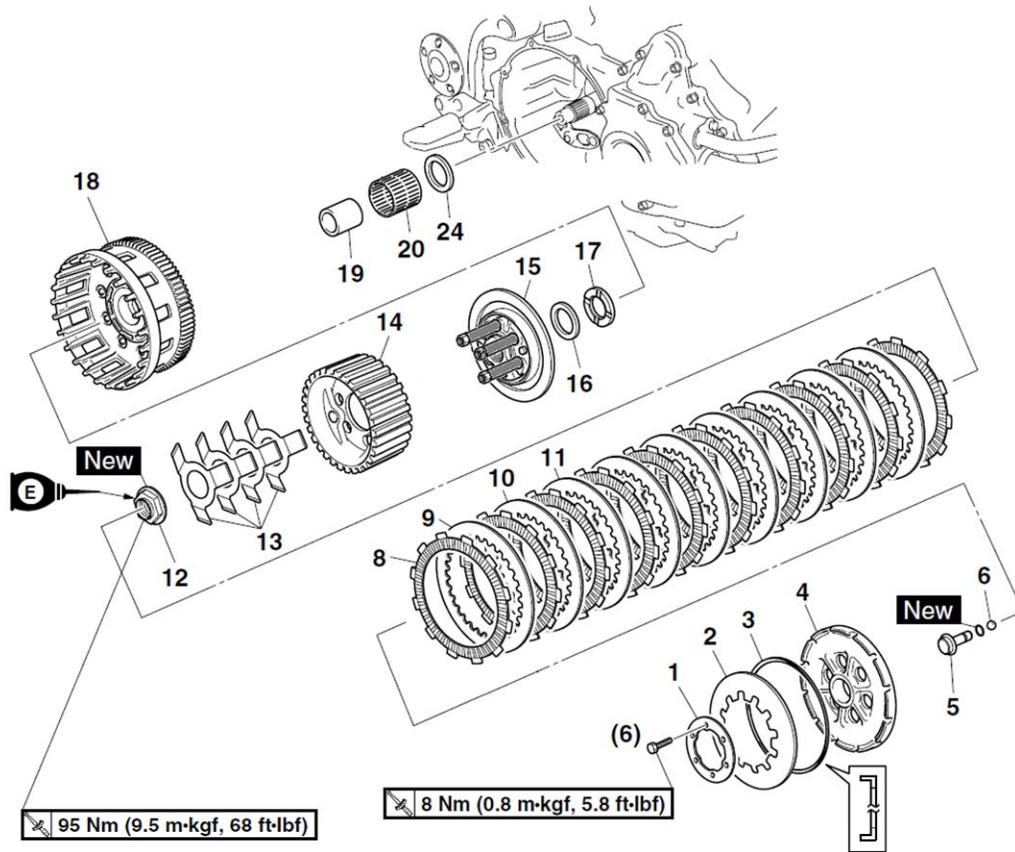
Install clutch spring plate seat.

**NOTE:** Make sure spring plate seat is installed with lip facing out as shown in the diagram.

Install clutch spring plate.

Install clutch spring plate retainer.

Install clutch spring bolts (qty. 6) and torque to 8 Nm (0.8 m·kgf, 5.8 ft·lbf).



| Item | Description                  | Item | Description           |
|------|------------------------------|------|-----------------------|
| 1    | Clutch spring plate retainer | 12   | Clutch boss nut       |
| 2    | Clutch spring plate          | 13   | Spring                |
| 3    | Clutch spring plate seat     | 14   | Clutch boss           |
| 4    | Pressure plate               | 15   | Clutch boss plate     |
| 5    | Short clutch push rod        | 16   | Conical spring washer |
| 6    | Ball                         | 17   | Thrust washer         |
| 8    | Friction plate               | 18   | Clutch housing        |
| 9    | Clutch plate 1               | 19   | Collar                |
| 10   | Clutch plate 2               | 20   | Bearing               |
| 11   | Clutch plate 3               | 24   | Thrust washer         |

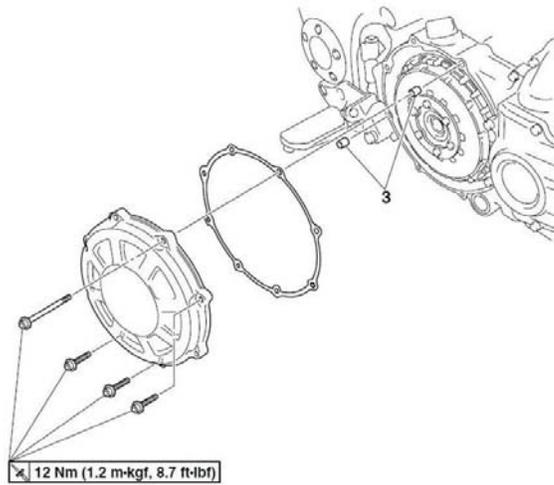
### 9. Clutch cover installation:

Install right side crankcase cover (clutch cover) alignment dowel pins (qty. 2).

Install new right side crankcase cover (clutch cover) gasket supplied in the oil pump kit.

**NOTE:** Clean all traces of original right side crankcase cover (clutch cover) gasket from the crankcase and cover.

Install right side crankcase cover (clutch cover) 6mm flange head bolts (qty. 8) and torque in a crisscross pattern to 12 Nm (1.2 m·kgf, 8.7 ft·lbf).



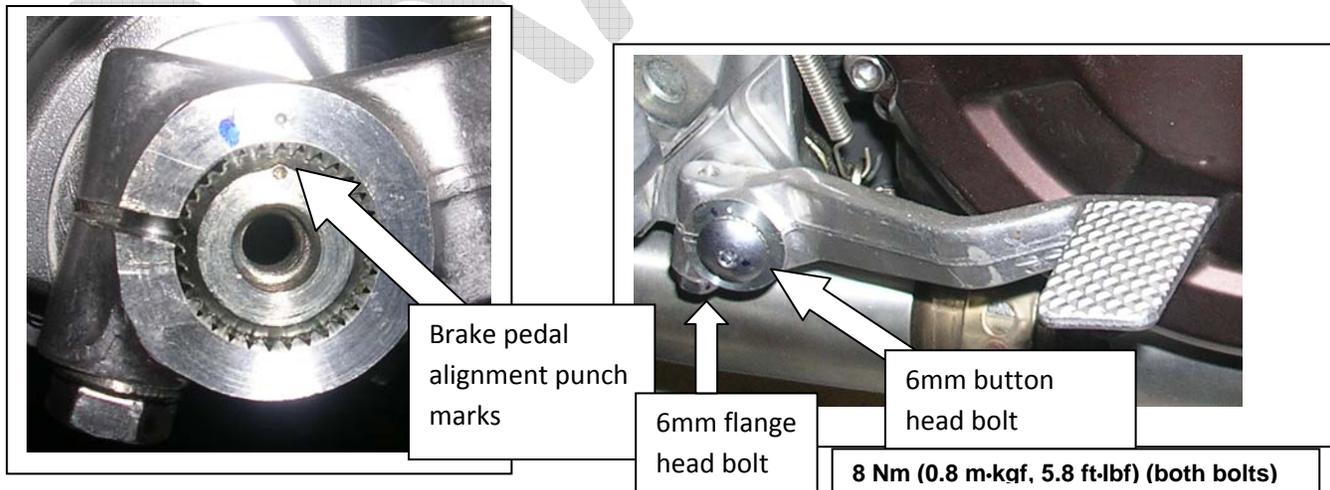
#### 10. Rear brake pedal installation:

Install brake pedal.

**Note:** The brake pedal and brake pedal pivot shaft have alignment punch marks that must be aligned during reassembly.

Install 6mm flange bolt and torque to **8 Nm (0.8 m·kgf, 5.8 ft·lbf.)**

Install 6mm button head bolt and torque to **8 Nm (0.8 m·kgf, 5.8 ft·lbf.)**



#### 11. Confirm operation:

Check engine oil level and add oil if necessary.

Start engine and confirm no abnormal engine noise.

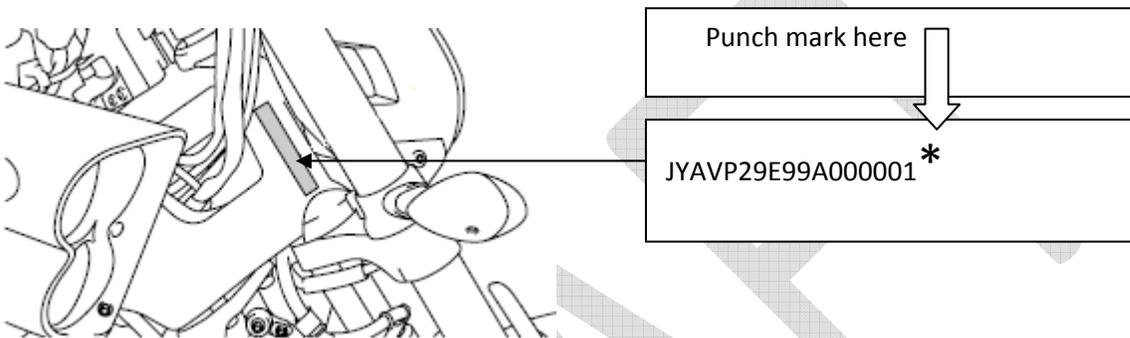
Confirm clutch operation.

Test ride and confirm rear brake and clutch operation.

Confirm there are no oil leaks.

## IDENTIFICATION PROCEDURE

After modifying a unit, make a punch mark above the vehicle identification number (VIN) as shown in the illustration. Check for this punch mark if you encounter an unfamiliar unit. You can also check unit status on YDS or by contacting your Regional Technical Advisor.



## PARTS INFORMATION

| KIT PART NAME         | KIT PART NUMBER | QTY | KIT PART NAME         |
|-----------------------|-----------------|-----|-----------------------|
| VMAX1700 Oil pump kit | 90891-10220-00  | 1   | VMAX1700 Oil pump kit |

## KITS PARTS CONTENTS

| No. | Part name     | Part number  | QTY |
|-----|---------------|--------------|-----|
| 1   | OIL PUMP ASSY | 2S3-13300-01 | 1   |
| 2   | NUT, LOCK     | 2S3-16377-00 | 1   |
| 3   | GASKET        | 214-11198-01 | 1   |
| 4   | O-RING        | 93210-06632  | 1   |
| 5   | GASKET        | 2S3-15453-00 | 1   |

Replacement parts in inventory are all of the corrected type.

### Part Identification

A groove has been added to the countermeasure oil pump housing plate. Please check the groove for part identification

number. (Photos)

**WARRANTY INFORMATION:**

The owner of each registered unit will receive a letter announcing this campaign. The customer's letter includes the Primary ID and Recall Number.

The modification is authorized for all motorcycles, both sold and unsold, regardless of ownership or warranty status. You do not need the customer's letter to perform the modification or to file for reimbursement.

Submit a Recall Request for the parts and labor for VMX17 oil pump exchange as described below using Recall Number **990064**. The labor allowance is **1.0 hour**.

**YDS:**

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function will allow you to enter multiple Primary IDs for the same recall. Remember that YDS requires a 7-digit serial number, so use a "0" as the first digit. The system will check your submission instantly to make sure the Primary ID numbers you've entered are valid for the recall. You can check back the next day for your claim numbers to track your credit.

**MAIL:**

Complete a recall Reimbursement Request (LIT-11790-00-03) as shown below:  
If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 7 in your **Warranty and Y.E.S. Handbook** (LIT-11760-00-08).