



**YAMAHA MOTOR CORPORATION, U.S.A.**

6565 KATELLA AVENUE, CYPRESS, CALIFORNIA 90630-6101 714/781-7300

March 3, 2004

Via Electronic Mail & Federal Express  
Mr. George Person  
National Highway Traffic Safety Administration  
400 Seventh St. SW  
Washington, D.C 20590

**Regarding: 03V-309  
Yamaha Recall of XV 16/17 Motorcycles Regarding Transmission**

Dear George,

Thank you for the discussion yesterday relative to the history of the campaign. So that you have a complete package, I will transmit this cover letter via e-mail and submit the attachments via Fed Ex.

As we discussed, this campaign, or campaigns depending on how you look at it, stems from a quality control problem in lieu of design. The campaign was launched via our Technical Bulletin M 2003-011 in September of last year. The original affected range was 2,826 units of 2001 model year XV 16 machines produced between 11/00 through 01/01. The affected range was determined by Yamaha Motor Co. Ltd. Quality Assurance personnel in Japan on the basis that the jig used to produce certain transmission components was out of calibration. It was thought that the potentially defective components produced during this miscalibration period were installed in the completed motorcycles reflected in this affected range.

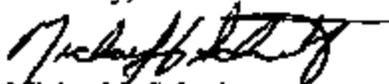
During this implementation stage we worked with NHTSA ODI staff, as it appeared possible that units outside the original effected range of Bulletin 2003-011 could manifest the same phenomena. Subsequent evaluation by Yamaha Motor Co. Ltd. of Japan could not provide assurance as to traceability of potentially defective components into unit production subsequent to the effective range of the recall initiated in September of 2003. Out of an abundance of caution, we expanded the range of 03V-309 to include all 2002 and 2003 model year XV16/XV17 via Technical Bulletin M2004-002 dated 1/9/04. The owner's notification was approved by the Agency, as is standard practice.

Upon consultation with the Agency, this action was viewed as an "expansion" of the existing 03V-309. Contemporaneous with this, I reported updated quantities and production periods as requested by the Agency in lieu of a new 573 report.

Yamaha is well aware that customers have complained relative to the speed of repair under the second Bulletin. We apologize that some have contacted the Agency Hotline. As I explained, we have two issues at work here. First, the second Bulletin was issued in the "dead of winter". Except in "sunbelt" states, this is not exactly prime riding conditions, which would lead to the thought, that repair immediacy is not anticipated. Further, this is a very expansive recall as far as parts/service. It is essentially a transmission "tear-down" and replacement. Although parts have been fabricated in an expeditious fashion and are second day air freighted free of charge to our dealers, the unanticipated demand has temporarily out-stripped supply. In light of this, we have pressed for increased parts production. Further, we have dedicated parts and customer service personnel allocating these parts in the most efficient manner.

As you know, it is our mutual goal to complete this campaign as timely and completely as possible. To this end, if the Agency has any suggestions relative thereto we stand eager to entertain them. Further, upon your review of the attachments, if Yamaha needs to update any of the reports or submissions we would be pleased to do so. We thank you for your assistance.

Sincerely,



Michael J. Schmitt  
Division Manager  
Government Relations

**Attachments:**

8-22-03	573 report from Yamaha to NHTSA
8-26-03	NHTSA Acknowledgement 03V-309
9-02-03	Yamaha Technical Bulletin & Owners Letter (M2003-011)
12-29-03	Yamaha Recall Report
01-05-04	NHTSA Expansion of Recall Acknowledgement
01-09-04	Yamaha update of quantities/production periods to NHTSA
01-09-04	Yamaha Technical Bulletin & Owners Letter (M2004-002)



**YAMAHA MOTOR CORPORATION, U.S.A.**  
6555 KATELLA AVENUE, CYPRESS, CALIFORNIA 90630-6101 714/781-7300

August 22, 2003

**VIA FACSIMILE (202) 366-7882**  
**ALSO VIA FEDERAL EXPRESS**

National Highway Traffic Safety Administration  
Associate Administrator for Enforcement  
400 Seventh Street, SW  
Washington, DC 20590

Dear Sirs:

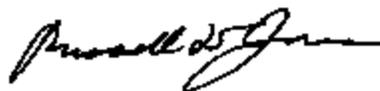
The purpose of this correspondence is to provide information required by 49 CFR 573 and the National Traffic and Motor Vehicle Safety Act regarding a defect notification campaign we are initiating.

1. **Manufacturers Name:** Yamaha Motor Company, Ltd.  
**Imported Vehicle Distributor:** Yamaha Motor Corporation, U.S.A.  
6555 Katella Avenue  
Cypress, California 90630
2. **Vehicles Affected:** Certain production ranges of the following:  
**Make:** Yamaha  
**Models:** 2001 Model Year XV1600AN, ANC, ASN, ASNC
3. The aforementioned models feature the transmission related to this campaign. This transmission defect does not occur in other models or production outside the affected range.
4. **Total number of subject vehicles:** 2,826
5. Refer to Technical Bulletin for affected range.
6. The campaign involves a transmission repair. Please refer to the attached Technical Bulletin being furnished to dealers describing same.

7. Yamaha Motor Corporation, U.S.A. has been informed by the manufacturer, Yamaha Motor Company, Ltd., that such models have experienced the indicated potential failure.
8. Not applicable.
9. We are also today submitting to the Office of Defects Investigation our proposed owners' notification and envelope to be used for this mailing. The envelope has been previously approved by NHTSA. It is our intent to issue the enclosed Technical Bulletin and the owners' letter when approved by the Agency. The mailing should be accomplished in two days.
10. Please refer to the attached Technical Bulletin, proposed owners' letter and envelope.

In the event we can answer any questions or provide supplemental information, please do not hesitate to contact the undersigned.

Sincerely,



Russell D. Jura  
Senior Vice President  
and General Counsel

RDI/Imf

Enclosures: Technical Bulletin  
Proposed Owners' Letter/Envelope



**YAMAHA MOTOR CORPORATION, U.S.A.**  
6555 KATELLA AVENUE, CYPRESS, CALIFORNIA 90830-5101 714/761-7300

August 22, 2003

**VIA FACSIMILE (202) 366-7882**  
**ALSO VIA FEDERAL EXPRESS**

Office of Defects Investigation  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Room 5319  
Washington, DC 20590

Dear Sir or Madam:

Yamaha Motor Corporation, U.S.A. is initiating a recall campaign on 2001 Model Year XV1600AN, ANC, ASN, ASNC motorcycles.

Enclosed herewith is a draft copy of our proposed owner letter, dealer bulletin and envelope we wish to use with this campaign. The envelope was approved by the Agency for use in a previous campaign. The owner letter will of course be on letterhead and the dealer bulletin on Technical Bulletin stock. Your expeditious review and acknowledgement is appreciated. We would like to commence owner notification as soon as possible when the materials are approved by the Agency.

For TREAD purposes, substantially similar models within the affected range of the campaign were exported to other countries. Yamaha entities will perform the same campaign in their respective jurisdictions.

Please contact me directly with any comments on these draft materials. You may reach me at (714) 761-7709 or via facsimile at (714) 761-7836.

Thank you in advance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Russell D. Jura".

Russell D. Jura  
Senior Vice President  
and General Counsel

RDJ/lmf  
Enclosures: Owners Letter  
Dealer Bulletin  
Owners Envelope



U.S. Department  
of Transportation

AUG 26 2003

400 Seventh Street, SW  
Washington, DC 20590

National Highway  
Traffic Safety  
Administration

**ACKNOWLEDGEMENT FAX SHEET OF RECEIPT OF DEFECT  
INFORMATION REPORT SUBMITTED UNDER 49 CFR PART 573**

Assigned Recall No. 03V-309 by the  
National Highway Traffic Safety Administration

Part 573 Report Date: August 22, 2003      Date Faxed & E-Mailed: Aug 26, 2003

MANUFACTURER: Yamaha Motor Corporation, USA

MANUFACTURER CONTACT: Mr. Russell D. Jura  
Senior Vice President  
and General Counsel

FAX: 714-761-7836

TELEPHONE: 714-761-7709

SUBJECT: 2,826 2001 XV1600AN and XV1600ANC Road Star motorcycles and  
2001 XV1600ASN and XV1600ASNC Midnight Star motorcycles manufactured  
between November 2000 and January 2001. In the transmission, the  
second/third pinion gear may be incorrectly machined which could cause  
abnormal wear that eventually results in a broken retainer circlip.

This is an acknowledgment for this recall. A formal acknowledgment letter will be  
written if we have additional comments or concerns.

**NOTIFICATION TO PURCHASERS**

We have reviewed your proposed owner notification letter and it meets the requirements  
of Part 577. Please submit any final documents that relate to this recall as they become  
available.

**QUARTERLY REPORTS**

As stated in Part 573.7, submission of the first of six consecutive quarterly status reports  
is required within one month after the close of the calendar quarter in which notification  
to purchasers occurs. Since notification to customers will begin during the third quarter

of 2003, July 1 through September 30, Yamaha's first report must be received in this office on or before October 30, 2003.

If you have any questions, please call:

*Kelly  
Schuler for*

Patricia Wallace, Safety Defects Analyst on (202) 366-5232 or  
George Person, Chief on (202) 366-5210  
or Fax at (202) 366-7882  
or e-mail at [pwallace@nhtsa.dot.gov](mailto:pwallace@nhtsa.dot.gov)  
Recall Management Division

# Technico

# BULLETIN

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## RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

## 2001 XV16AN, ANC, ASN, ASNC FACTORY MODIFICATION CAMPAIGN



### INTRODUCTION

Yamaha Motor Corporation, U.S.A., has determined that a defect which relates to motor vehicle safety exists in certain 2001 XV16AN and XV16ANC ("Road Star") motorcycles, and in certain 2001 XV16ASN and XV16ASNC ("Midnight Star") motorcycles. In the transmission of affected motorcycles, the second/third pinion gear may be incorrectly machined, which could cause abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motorcycles must have the transmission gears and shafts replaced with new ones.

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 will also require modification. If you purchase a motorcycle from another dealer, 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 8 of the Warranty and Y.E.S. Handbook (LIT-11760-00-03).



## DEALER ACTION SUMMARY

**Modify:** All XV16AN, ANC, ASN, and ASNC units in the affected range.

**Parts**

**Required:** Yes. Order one Transmission Gear/Shaft Assembly Kit for each unit.

**Warranty:** Factory Modification Campaign. See the Warranty Information section of this bulletin.

**Notify**

**Customers:** 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 8/28/03.



## AFFECTED RANGE

XV16AN	VP02E-012385 ~ 014775
XV16ANC	VP02Y-001307 ~ 001456
XV16ASN	VP02E-012481 ~ 014870
XV16ASNC	VP02Y-001457 ~ 001706



## SERVICE PROCEDURES

Use the XV1600 service manual (LT-11616-12-56) for information on engine removal, disassembly, re-assembly, and installation.

The information contained in this section will give you tips or short cuts on certain procedures to help you work efficiently. For example, when disassembling the engine to access the transmission, it is not necessary to remove the camshafts, lifters, or stator assembly. Review the tips and become familiar with them before beginning work.

### PREPARATION

Properly secure the motorcycle on a suitable lift. Drain the oil from the engine, reservoir tank, and transfer case. Remove the fuel tank, exhaust system, fuel system, drive system, etc. to prepare for engine removal.

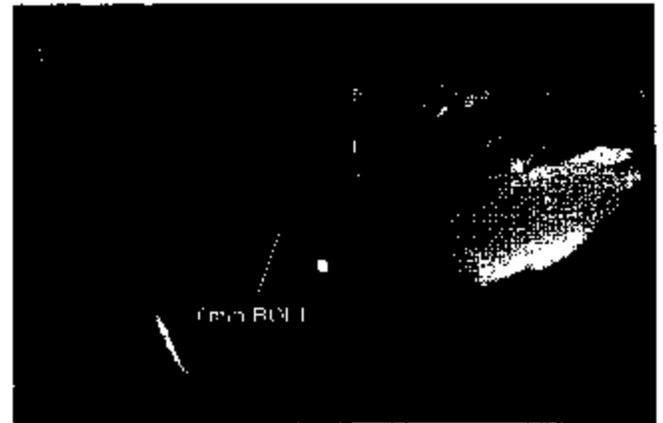
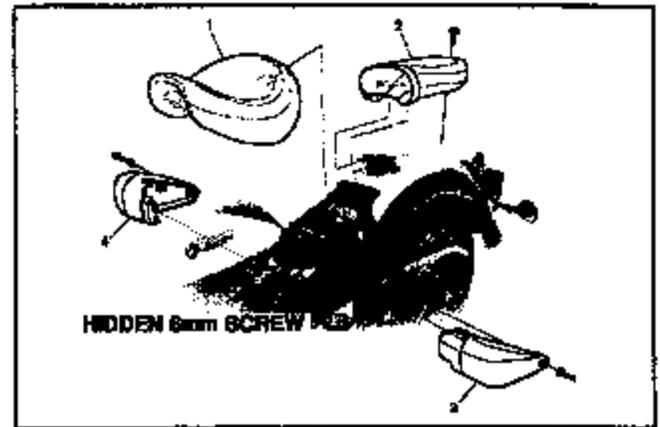
Lay the components out in order of removal and keep all the fasteners separated for each component to ease re-assembly.

**Avoid accidental cosmetic damage.** Place components such as fuel tank, side covers, and other easily damaged components in a secure and protected area. Take special care when removing and installing accessories.

## TIPS

### Side Cover Removal:

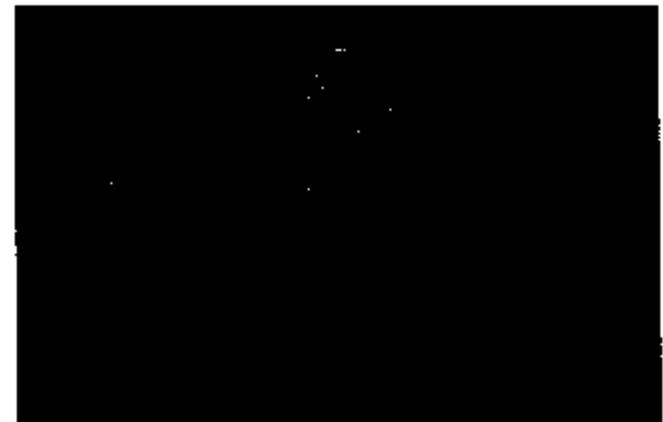
Before attempting to remove the right side cover, remove the left cover first to access the hidden 6mm bolt.



### Fuel Pump and Carburetor Removal:

- Disconnect the carburetor fuel line hose at the fuel pump.
- Disconnect the fuel pump wire coupler.
- Remove the choke cable from fuel pump bracket.
- Remove the upper engine mount, leaving the fuel pump attached to the mount.
- Disconnect the TPS and carburetor wire couplers. Disconnect the throttle cables, and then remove the carburetor.

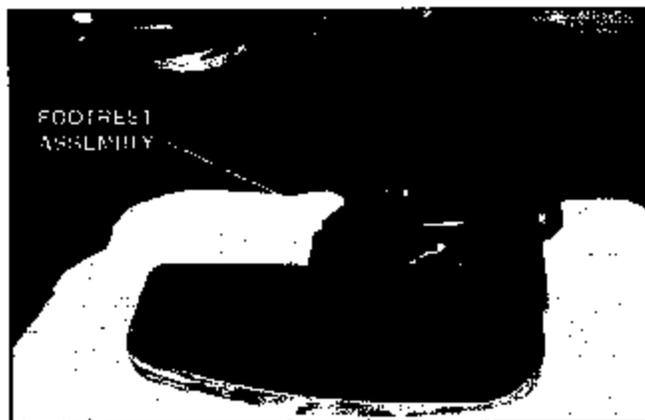
**NOTE:** The idle adjuster can be removed from its bracket without loosening the bracket screws.



### Right-Hand Footrest Removal:

- Disconnect and remove the brake light switch.
- Remove the forward-most tie wrap around the brake hose and frame.
- Remove the footrest assembly.

**NOTE:** Leave the brake hose attached. Move the hose to the underside of the foot rest mount and support it as necessary so that it is out of the way



### Cylinder Head Oil Pipe Removal/ Installation:

- Slightly loosen all three banjo bolts before removing them to prevent oil line deformation.

**NOTE:** When loosening the upper banjo bolts, hold the line in place using a wrench at the flat surface on the fitting.



### Air Injection System (AIS) Removal:

- Remove the electric starter motor.
- Remove the regulator/rectifier assembly. Remove the AIS pipes from the cylinder head, but leave them attached to the AIS assembly.
- Remove the three screws with 8mm heads, and then remove the AIS air filter from the right side.
- Remove the three Phillips head screws holding the AIS assembly on the frame.
- Remove the AIS assembly from the left side.



### Transfer Case Removal:

- Remove the transfer case bracket first. Then remove the outer chrome cover, inner cover, and drive-sprocket nut.

**NOTE:** There is a sealing washer between the inner case and the transfer case at the 8mm stud. Be sure to replace it during re-assembly.

- Remove the two chrome oil lines between the engine and oil tank.

**NOTE:** Retain the four O-rings for re-use.

- Remove the drive pulley cover and remove the drive pulley nut.
- Loosen the drive belt tension.
- Remove the drive pulley, inner cover, collar, and O-ring.

**NOTE:** The collar has a bevel on its inside diameter for the O-ring facing inward and a bevel on the outside diameter facing the pulley.

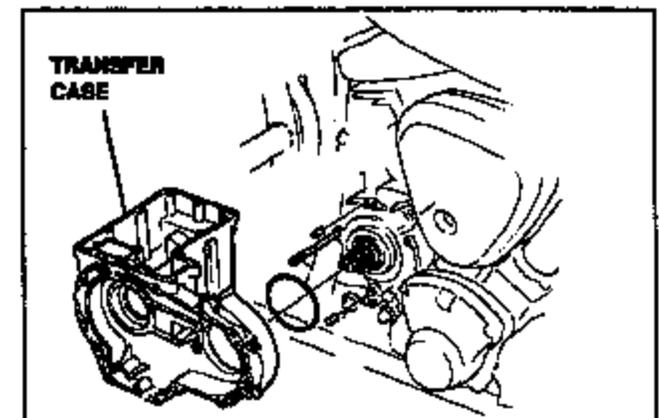
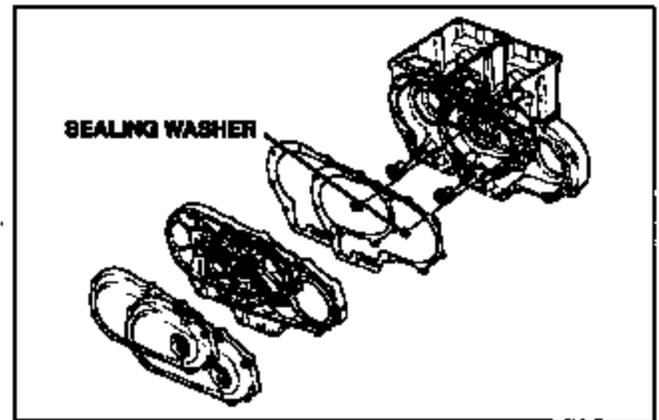
- Remove the drive and driven sprockets with chain as an assembly.
- Remove the collar and O-ring.

**NOTE:** Collar has a bevel on its inside diameter that faces inward for the O-ring.

- Remove oil tank filler neck.
- Remove the relay bracket on the right-hand side.

**NOTE:** Leave the relays connected. Simply move them out of the way to allow room for transfer case removal.

- Slide the transfer case out from the right side.



### Engine Removal/Installation:

- When the engine is ready to be removed from the frame, be sure to disconnect all wire connectors and remove the oil filter bracket.
- Remove all engine mounting bolts and brackets.
- Protect all right side frame tubes with protective tape or an equivalent to prevent scratches.
- Insert steel rods in front and rear engine mount holes and with one person on each side of the engine lift the engine up and out to the right.

**NOTE:** Use 7/16" (10mm) steel rod at least 20" long. The steel rods used to compress the rear suspension of ATVs in their shipping crate work well.

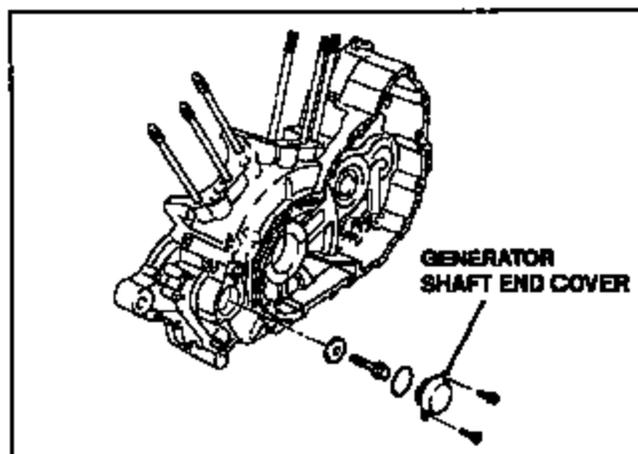
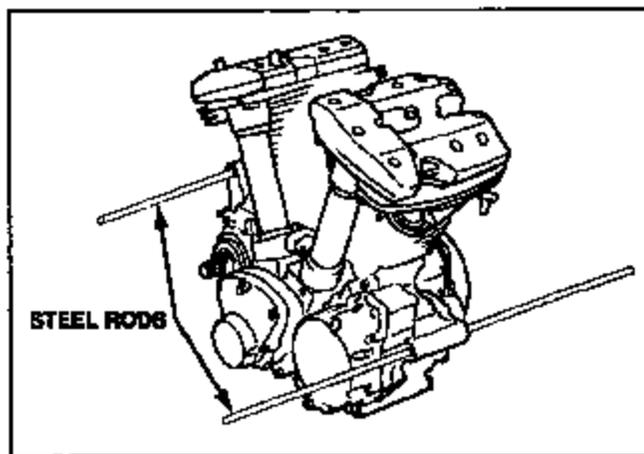
### Engine Tear Down:

Place the engine on a work bench or work surface covered with cardboard or other protective material to protect the engine finish.

- Remove the left-hand generator shaft end cover and remove the generator shaft bolt and washer.
- Remove the clutch, primary drive gear, shift shaft, shift detent, oil pump gear and oil crossover pipe.

**NOTE:** The right side of the crossover pipe has an O-ring. If the O-ring doesn't come out with the crossover pipe, be sure to remove it while the engine is disassembled.

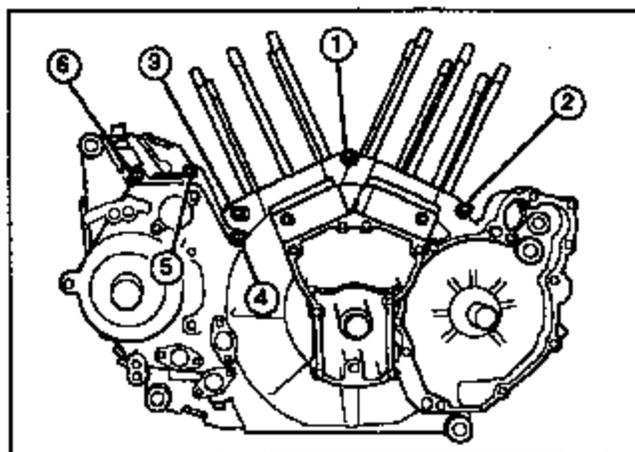
- Remove both top ends



**NOTE:** Do not remove the push rod tubes from the crankcase. Remove only one circlip from the piston for quicker piston pin removal.

- Remove the right side crankcase bolts (three 8mm and three 6mm) only.

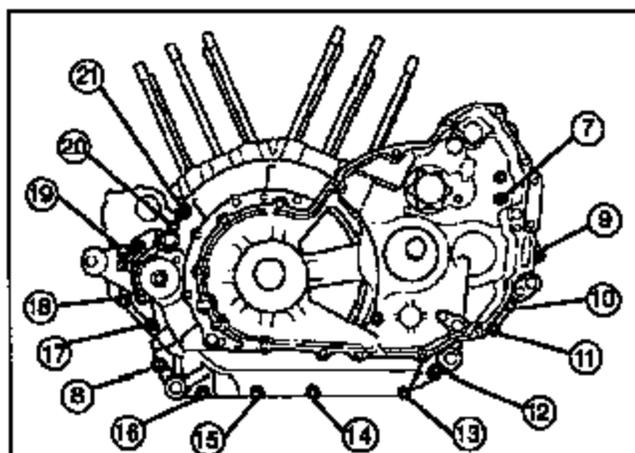
**NOTE:** Do not remove the cam cover or generator cover.



- Tilt the engine to the right and rest the cam cover against a block covered with cardboard or other protective material to protect the engine finish. Remove the left-side crankcase bolts (6mm bolts, quantity 15).

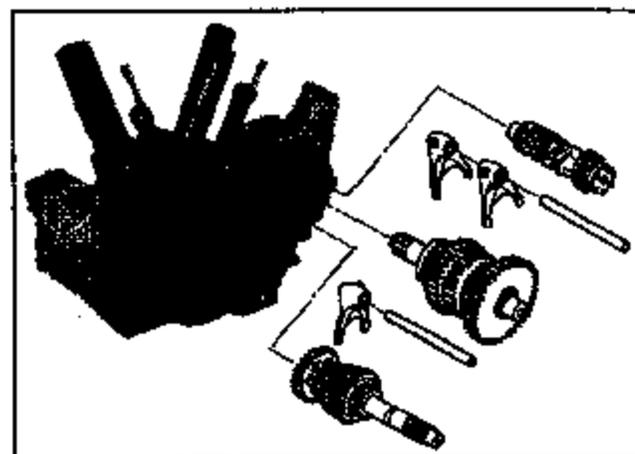
- Align the shift cam segment with the segment-shaped hole in the crankcase.

- While holding the crankshaft against the right crankcase, remove the left crankcase half.



**Be sure to hold the crankshaft against the right case half to prevent disengagement of the camshaft drive gear.**

- Remove the shift fork shafts, shift forks, and transmission.



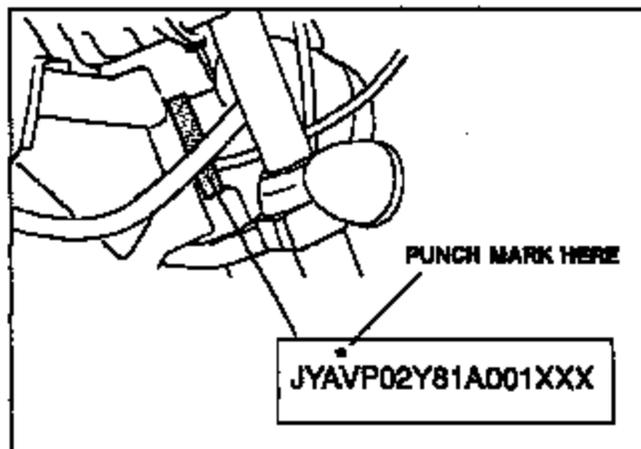
**PARTS INFORMATION**

Part Number	Description	Comments	Qty	Dealer Cost
90891-10116-00	XV16 Transmission Exchange Kit		1	\$142.87
	• Transmission Gear/Shaft Set		1	
	• Circlip (93450-24028-00)	For pistons	2	
	• Piston Ring Set (34L-11610-00-00)	For pistons (STD)	2	
	• Washer, Lock (90215-25218-00)	For clutch nut	1	
	• Gasket, Crankcase Cover 1 (5PX-15451-00-00)	Clutch cover gasket	1	
	• Gasket, Cyl. Head 2 (4WM-11182-00-00)	Lower rocker gasket	2	
	• Gasket, Head Cover 1 (4WM-11193-00-00)	Middle rocker gasket	2	
	• Gasket, Head Cover 2 (4WM-11194-00-00)	Upper rocker gasket	2	
	• Gasket, Cyl. (4WM-11351-00-00)	Base gasket	2	
	• Gasket, Cyl. Head 1 (4WM-11181-00-00)	Head gasket	2	
	• Gasket, Exhaust Pipe (3EG-14613-00-00)	Head pipe-to-cylinder head	2	
	• Gasket, Silencer (3XW-14755-00-00)	Muffler-to-head pipe gasket	2	
	• O-Ring (93210-505A4-00)	Intake manifold O-ring	2	
	• Gasket 1 (5PX-17929-00-00)	Transfer case cover gasket	1	
	• Washer, Lock (90215-26241-00)	For transfer gear and drive pulley nuts	2	
	• Element Assy, Oil Cleaner (3FV-13440-10-00)	Cartridge oil filter	1	
	• O-Ring (93210-06867-00)	Right side of oil crossover	1	
	• Gasket 2 (4WM-17931-00-00)	Sealing washer between transfer case	1	
	• Washer, Plate (90201-06087-00)	Copper sealing washer for oil line	2	
	• Gasket (90430-10171-00)	Copper sealing washer for oil line	4	



## IDENTIFICATION PROCEDURE

After modifying a unit, make a punch mark above the frame number (VIN) on the steering head pipe as shown in the illustration below.



## WARRANTY INFORMATION

Submit a Recall Request for the transmission replacement as described below using Recall Number 990018. Choose the status "M." You will be reimbursed a labor allowance of 8.5 hours (which includes allowance for oil and shop supplies), plus the cost of the Transmission Kit and your handling fee.

### YDS:

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function has recently been improved to allow you to enter multiple Primary IDs for the same recall. Remember that YDS now 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-11790-00-97) as shown below:

Dealer Number: <input type="text"/>		Dealer Name: <input type="text"/>																																																																																																																																																													
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If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 8 in your Warranty and Y.E.S. Handbook (LIT-11760-00-03).

6555 Katella Avenue, Cypress, California 90630-5101 (714) 761-7300

## SAFETY RECALL NOTICE

September 2, 2003

Mike Schmitt (1)  
Government Relations

Dear Yamaha Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Yamaha Motor Corporation, U.S.A., has decided that a defect which relates to motor vehicle safety exists in certain 2001 XV16AN and XV16ANC ("Road Star") motorcycles, and in certain 2001 XV16ASN and XV16ASNC ("Midnight Star") motorcycles. Our records show that you own one of these motorcycles.

**The reason for this recall:**

In the transmission of affected motorcycles, the second/third pinion gear may be incorrectly machined, which could cause abnormal wear that eventually results in a broken retaining droilip. If the droilip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

**What Yamaha and your dealer will do:**

To correct this defect, your authorized Yamaha dealer will replace the transmission gears and shafts with new ones. There will be no charge to you for this procedure. Your dealer will probably need to keep your motorcycle for at least two days to accomplish the required modification.

**What you should do**

Please call your Yamaha dealer to make a service appointment to have this procedure performed. At that same time you can find out how long he expects he will need to keep your motorcycle for this service. Remember to take this letter with you when you take in your Road Star or Midnight Star motorcycle.

You should not ride your motorcycle until this modification is performed. If your motorcycle's transmission needed a repair previously, you should still have this modification performed now. If those previous transmission repairs were made at your expense, you should ask the servicing Yamaha dealer to contact Yamaha Customer Relations if the failure involved a broken droilip.

If you are unable to return to the Yamaha dealer who sold you the motorcycle, this service will be performed by any authorized Yamaha Motorcycle dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha web site at: [www.yamaha-motor.com](http://www.yamaha-motor.com).

**If you need help:**

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to

Yamaha Motor Corporation, USA  
Customer Relations Department  
P.O. Box 6555  
Cypress CA 90630

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh St. SW, Washington, DC 20590 or call the Auto Safety Hotline at 888-327-4236.

**If you no longer own this Yamaha:**

If you have sold your motorcycle to another party, please call us toll-free at 1-800-227-6663 with the name and address of the new owner, along with the serial number shown above your name on the address label above.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,  
Customer Support Group  
Yamaha Motor Corporation, USA



**YAMAHA MOTOR CORPORATION, U. S. A.**  
8555 KATELLA AVENUE • CYPRESS • CALIFORNIA • 90630-8101 • 714/761-7700 FAX 714/761-7836  
December 29, 2003

**VIA FACISIMILE (202)366-7882**  
**ALSO VIA FEDERAL EXPRESS**

Office of Defects Investigation  
National Highway Traffic Safety Administration  
400 Seventh Street, SW  
Room 5319  
Washington, DC 20590

Dear Sir or Madam:

Yamaha Motor Corporation, U.S.A. is initiating a recall campaign on 2001, 2002, and 2003 Model Year XV1600 motorcycles. Except for small differences in service procedures, this campaign essentially expands the effected range of products in previous recall 03V-309. We are also initiating a separate campaign for 2002 and 2003 model year XV17 motorcycles.

Enclosed herewith are draft copies of our proposed owner notification letters, dealer bulletins and envelope we wish to use with these campaigns. The proposed owners' notification letter is the last page of each respective dealer bulletin. The envelope was approved by the Agency for use in a previous campaign. The owner letters will of course be on letterhead and the dealer bulletins on Technical Bulletin stock. Your expeditious review and acknowledgement is appreciated. We would like to commence owner notification as soon as possible when the materials are approved by the Agency.

For TREAD purposes, substantially similar models were exported to other countries. Yamaha entities will perform the same campaigns in their respective jurisdictions.

Please contact me directly with any comments on these draft materials. You may reach me at (714)761-7709 or via facsimile at (714)761-7836.

Thank you in advance.

Sincerely,

A handwritten signature in black ink that reads "Russell D. Jura" followed by a stylized flourish.

Russell D. Jura  
Senior Vice President  
And General Counsel

RDJ:lnh

Enclosures: Owner Notification Letters  
Dealer Bulletins  
Owner Notification Envelope

# EXPANSION OF RECALL

## ACKNOWLEDGEMENT FAX SHEET OF RECEIPT OF DEFECT INFORMATION REPORT SUBMITTED UNDER 49 CFR PART 573

Assigned Recall No. 03V-309 by the  
National Highway Traffic Safety Administration

Expansion Report Date: December 29, 2003

Date Faxed & E-Mailed: January 5, 2004

MANUFACTURER: Yamaha Motor Corporation, USA

MANUFACTURER CONTACT: Mr. Russell D. Jura, Senior Vice President  
and General Counsel

FAX: 714-761-7836

TELEPHONE: 714-761-7709

SUBJECT: Additional models are being added to this campaign: 2001 XV16 (Road Star, Midnight Star and Road Star Silverado), 2002-2003 XV16 (Road Star, Road Star Limited Edition, Midnight Star, and Road Star Silverado), 2002-2003 XV 17 PCP, PCPC, PCR, PCRC (Road Star Warrior) motorcycles. In the transmission, the second/third pinion gear may be incorrectly machined which could cause abnormal wear that eventually results in a broken retainer circlip.

This is an acknowledgment for this recall. A formal acknowledgment letter will be written if we have additional comments or concerns.

This expansion was the subject of a Preliminary Evaluation, PE03-038, conducted by the Office of Defects Investigation.

### NOTIFICATION TO PURCHASERS

We have reviewed your proposed owner notification letters and they meet the requirements of Part 577. Please submit any final documents that relate to this recall as they become available.

### QUARTERLY REPORTS

An additional six quarterly reports will be required for this campaign.

**NOTE:** Please provide an updated quantity of vehicles and the beginning and ending manufacturing dates for the expansion.

If you have any questions, please call:



Patricia Wallace, Safety Defects Analyst on (202) 366-5232 or  
George Person, Chief on (202) 366-5210  
or Fax at (202) 366-7882  
or e-mail at [Patricia.Wallace@nhtsa.dot.gov](mailto:Patricia.Wallace@nhtsa.dot.gov)  
Recall Management Division



**YAMAHA MOTOR CORPORATION, U.S.A.**  
8655 KATELLA AVENUE, CYPRESS, CALIFORNIA 90630-5101 714/781-7300

January 9, 2004

Ms. Patricia Wallace  
Safety Defects Analyst  
National Highway Traffic Safety Administration  
400 Seventh St., SW  
Room 5319  
Washington, DC 20590

**Regarding: 03V-309 Expansion of Recall**

Dear Ms. Wallace,

We thank the Agency for the expeditious review and approval of the owner notification letters we intend on using on this expanded campaign. Attached are hard-copies of the final dealer Technical Bulletins and owner notification letters.

Here our updated quantities and manufacturing dates:

XV16	Original quantity: 2,826	Production period:11/00 through 01/01
Additional XV 16	Quantity: 20,228	Production period 02/01 through 12/03
Current XV 16	Quantity: 23,054	Production period:11/00 through 12/03
XV 17	Quantity: 6,085	Production period: 10/01 through 6/03

Total for 03V-309: 29,139 units produced between 11/00 through 12/03

Sincerely,

Michael Schmitt  
Division Manager  
Government Relations

CC: Mr. Robert Young  
FAX: 301-963-9728

Enclosures: Owners Notification  
Technical Bulletin

# Technical BULLETIN

© 2004 YAMAHA MOTOR CORPORATION, U.S.A.

## RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

## 2001~2003 XV16 MODELS FACTORY MODIFICATION CAMPAIGN



### INTRODUCTION

Yamaha Motor Corporation, U.S.A., has determined that a defect which relates to motor vehicle safety exists in certain 2001 XV16 ("Road Star," "Midnight Star," and "Road Star Silverado") model motorcycles, and in 2002 and 2003 XV16 ("Road Star," "Road Star Limited Edition," "Midnight Star," and "Road Star Silverado") motorcycles. In affected motorcycles, certain transmission components may not meet Yamaha quality-control standards, which could allow abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motorcycles must have certain transmission components replaced with new ones.

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 involved 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 will also require modification. If you purchase a motorcycle from another dealer, 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 8 of the **Warranty and Y.E.S. Handbook (LT-11760-00-03)**.



## DEALER ACTION SUMMARY

**Modify:** All XV16 motorcycles in the affected range.

**Parts**

**Required:** Yes. Order one 4th Pinion Gear Exchange Kit for each unit.

**Warranty:** Factory Modification Campaign. See the Warranty Information section of this bulletin.

**Notify**

**Customers:** 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 1/8/04.



## AFFECTED RANGE

**2001 Models**

XV16AN	VP02E-015196~016113
XV16ASN	VP02E-014871~016033
XV16ATN	VP07E-006069~007073

**2002 Models**

XV16AP	All
XV16APC	All
XV16ASP	All
XV16ASPC	All
XV16ATP	All
XV16ATPC	All

**2003 Models**

XV16AR	All
XV16ARC	All
XV16ALER	All
XV16ALERC	All
XV16ASR	All
XV16ASRC	All
XV16ATR	All
XV16ATRC	All



## SERVICE PROCEDURES

Use the XV1600 service manual (LIT-11616-12-56) for information on engine removal, disassembly, re-assembly, and installation.

The information contained in this section will give you tips or short cuts on certain procedures to help you work efficiently. For example, when disassembling the engine to access the transmission, it is not necessary to remove the camshafts, lifters, or stator assembly. Review the tips and become familiar with them before beginning work.

### PREPARATION

Properly secure the motorcycle on a suitable lift. Drain the oil from the engine, reservoir tank, and transfer case. Remove the fuel tank, exhaust system, fuel system, drive system, etc. to prepare for engine removal.

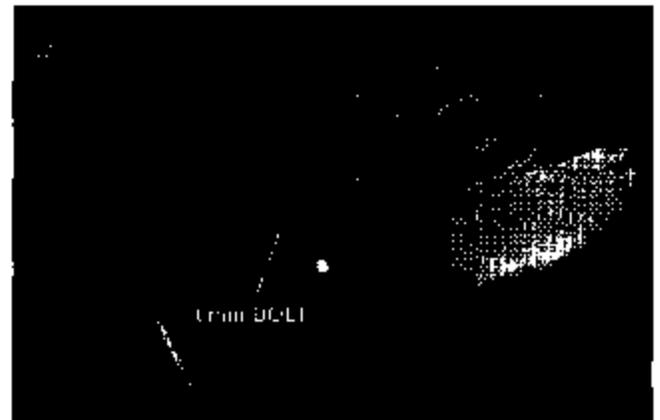
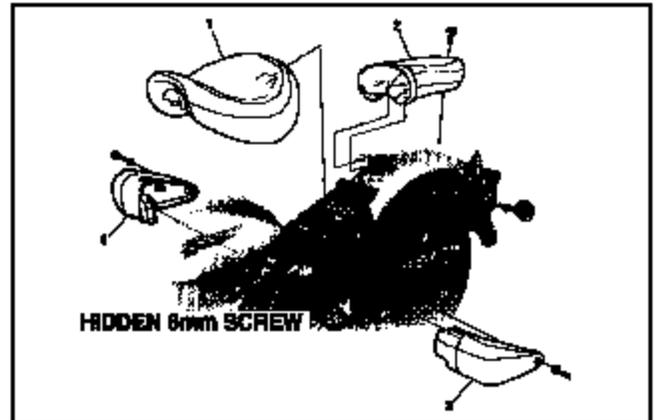
Lay the components out in order of removal and keep all the fasteners separated for each component to ease re-assembly.

**Avoid accidental cosmetic damage.** Place components such as fuel tank, side covers, and other easily damaged components in a secure and protected area. Take special care when removing and installing accessories.

## TIPS

### Side Cover Removal:

Before attempting to remove the right side cover, remove the left cover first to access the hidden 6mm bolt.



### Fuel Pump and Carburetor Removal:

- Disconnect the carburetor fuel line hose at the fuel pump.
- Disconnect the fuel pump wire coupler.
- Remove the choke cable from fuel pump bracket.
- Remove the upper engine mount, leaving the fuel pump attached to the mount.
- Disconnect the TPS and carburetor wire couplers. Disconnect the throttle cables, and then remove the carburetor.

**NOTE:** The Idle adjuster can be removed from its bracket without loosening the bracket screws.



### Right-Hand Footrest Removal:

- Disconnect and remove the brake light switch.
- Remove the forward-most tie wrap around the brake hose and frame.
- Remove the footrest assembly.

**NOTE:** Leave the brake hose attached. Move the hose to the underside of the foot rest mount and support it as necessary so that it is out of the way



### Cylinder Head Oil Pipe Removal/ Installation:

- Slightly loosen all three banjo bolts before removing them to prevent oil line deformation.

**NOTE:** When loosening the upper banjo bolts, hold the line in place using a wrench at the flat surface on the fitting.



### Air Injection System (AIS) Removal:

- Remove the electric starter motor.
- Remove the regulator/rectifier assembly. Remove the AIS pipes from the cylinder head, but leave them attached to the AIS assembly.
- Remove the three screws with 8mm heads, and then remove the AIS air filter from the right side.
- Remove the three Phillips head screws holding the AIS assembly on the frame.
- Remove the AIS assembly from the left side.



### Transfer Case Removal:

- Remove the transfer case bracket first. Then remove the outer chrome cover, inner cover, and drive-sprocket nut.

**NOTE:** There is a sealing washer between the inner case and the transfer case at the 8mm stud. Be sure to replace it during re-assembly.

- Remove the two chrome oil lines between the engine and oil tank.

**NOTE:** Retain the four O-rings for re-use.

- Remove the drive pulley cover and remove the drive pulley nut.
- Loosen the drive belt tension.
- Remove the drive pulley, inner cover, collar, and O-ring.

**NOTE:** The collar has a bevel on its inside diameter for the O-ring facing inward and a bevel on the outside diameter facing the pulley.

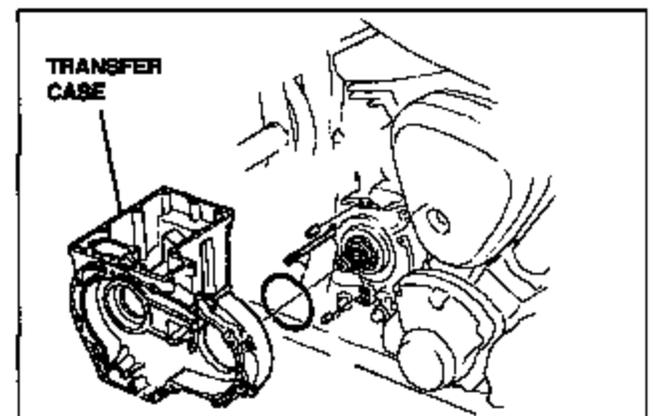
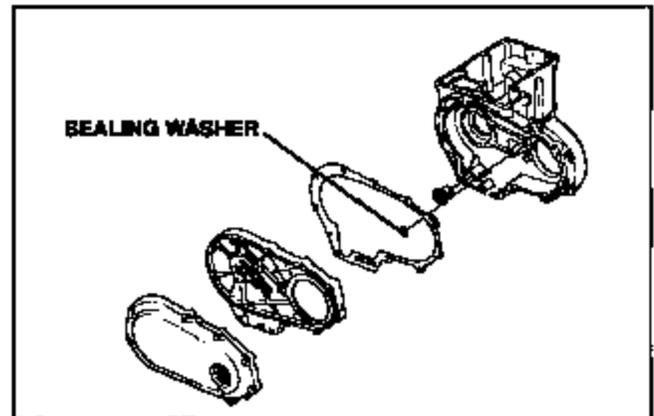
- Remove the drive and driven sprockets with chain as an assembly.
- Remove the collar and O-ring.

**NOTE:** Collar has a bevel on its inside diameter that faces inward for the O-ring.

- Remove oil tank filler neck.
- Remove the relay bracket on the right-hand side.

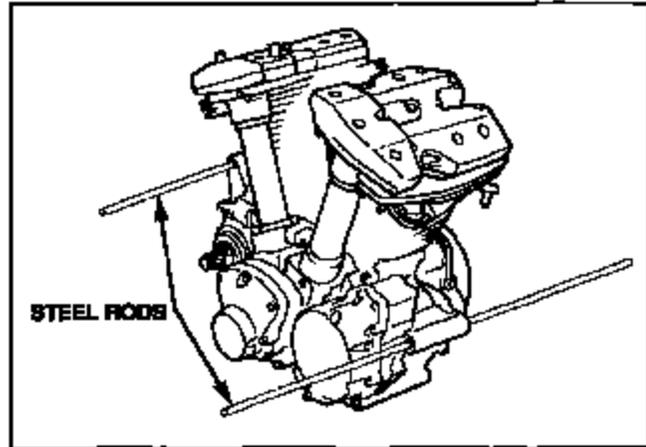
**NOTE:** Leave the relays connected. Simply move them out of the way to allow room for transfer case removal.

- Slide the transfer case out from the right side.



### Engine Removal/Installation:

- When the engine is ready to be removed from the frame, be sure to disconnect all wire connectors and remove the oil filter bracket.
- Remove all engine mounting bolts and brackets.
- Protect all right side frame tubes with protective tape or an equivalent to prevent scratches.
- Insert steel rods in front and rear engine mount holes and with one person on each side of the engine lift the engine up and out to the right.



**NOTE:** Use 7/16" (10mm) steel rod at least 20" long. The steel rods used to compress the rear suspension of ATVs in their shipping crate work well.

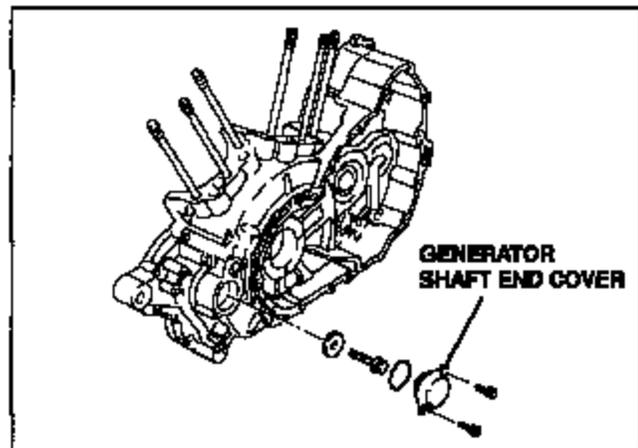
### Engine Tear Down:

Place the engine on a work bench or work surface covered with cardboard or other protective material to protect the engine finish.

- Remove the left-hand generator shaft end cover and remove the generator shaft bolt and washer.
- Remove the clutch, primary drive gear, shift shaft, shift detent, oil pump gear and oil crossover pipe.

**NOTE:** The right side of the crossover pipe has an O-ring. If the O-ring doesn't come out with the crossover pipe, be sure to remove it while the engine is disassembled.

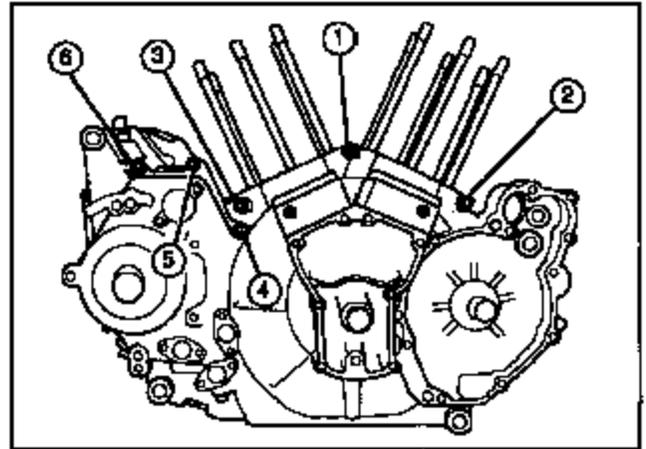
- Remove both top ends



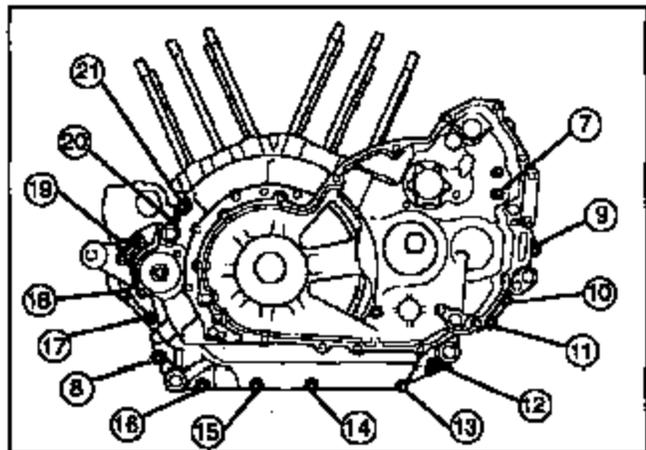
**NOTE:** Do not remove the push rod tubes from the crankcase. Remove only one circlip from the piston for quicker piston pin removal.

- Remove the right side crankcase bolts (three 8mm and three 6mm) only.

**NOTE:** Do not remove the cam cover or generator cover.

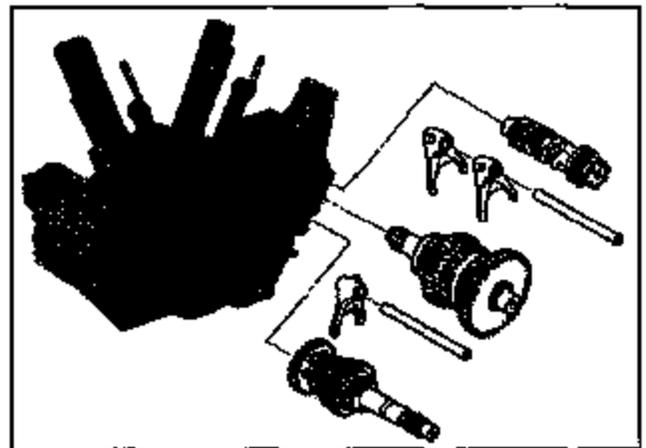


- Tilt the engine to the right and rest the cam cover against a block covered with cardboard or other protective material to protect the engine finish. Remove the left-side crankcase bolts (6mm bolts, quantity 15).
- Align the shift cam segment with the segment-shaped hole in the crankcase.
- While holding the crankshaft against the right crankcase, remove the left crankcase half.



**Be sure to hold the crankshaft against the right case half to prevent disengagement of the camshaft drive gear.**

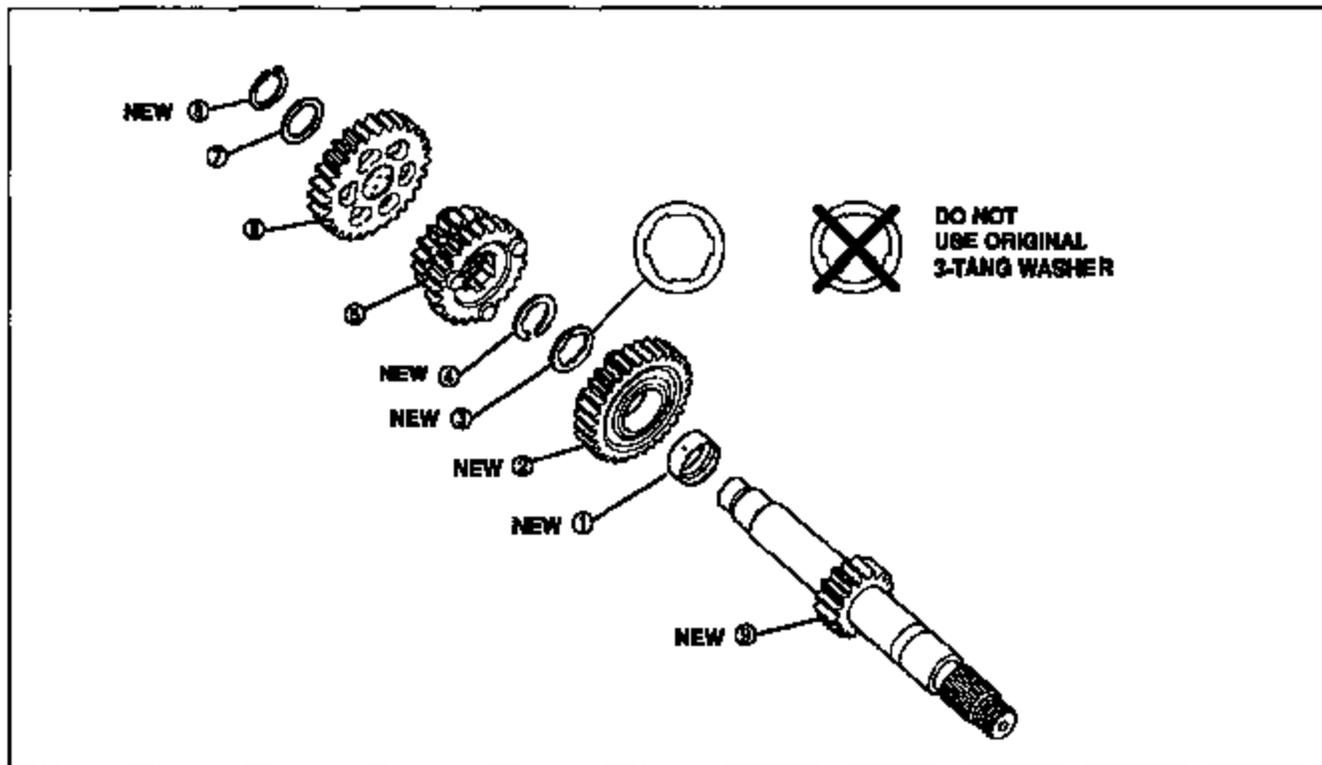
- Remove the shift fork shafts, shift forks, and transmission.



### Main Shaft Modification:

- Completely disassemble the main shaft. The Washer ⑦, 5th Pinion Gear ⑥, and 2nd/3rd Pinion Gear ⑤ will be reused.
- Install the components on the new-type Main Shaft ⑨ in the following order. Lubricate all components with engine oil. Be sure circlips are installed with the sharp edge of the inner diameter facing away from the mating washer.

- ① Collar – NEW
- ② 4th Pinion Gear – NEW
- ③ Washer – NEW
- ④ Circlip – NEW
- ⑤ 2nd/3rd Pinion Gear – Reuse original part
- ⑥ 5th Pinion Gear – Reuse original part
- ⑦ Washer – Reuse original part
- ⑧ Circlip – NEW



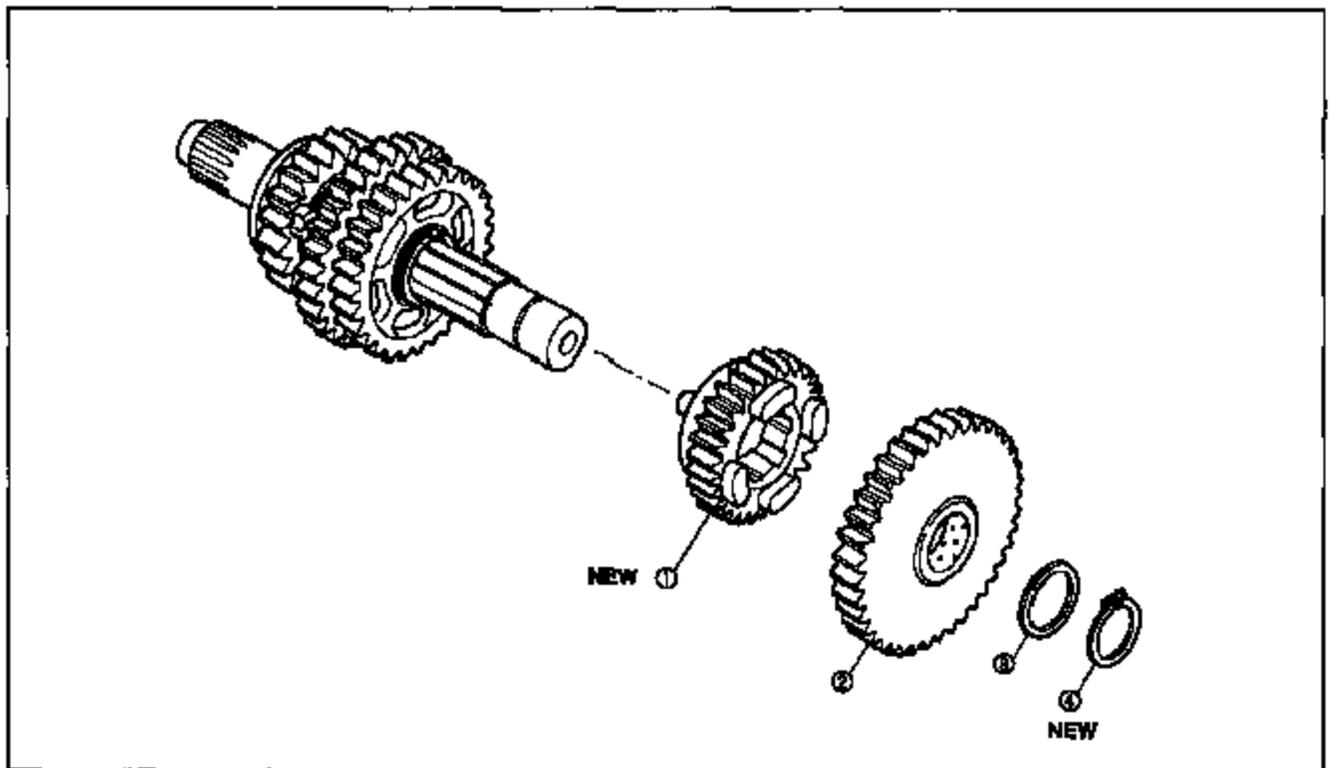
### **WARNING**

Be sure to use all of the new parts in the kit. Otherwise, the transmission can still fail. Be sure that you are installing the new washer ③. It is thicker than the original and can be easily identified by its six tangs on the inner diameter instead of the three on the original washer.

### Drive Shaft Modification:

- Remove the circlip and washer from the Drive Shaft, then remove the 1st Wheel Gear and the 4th Wheel Gear. Do not disassemble the rest of the components on the shaft.
- Install the components on the original Drive Shaft in the following order. Lubricate all components with engine oil. Be sure the circlip is installed with the sharp edge of the inner diameter facing away from the mating washer.

- ① 4th Wheel Gear – NEW
- ② 1st Wheel Gear – Reuse original part
- ③ Washer – Reuse original part
- ④ Circlip – NEW



### **⚠ WARNING**

**Be sure to use all of the new parts in the kit. Otherwise, the transmission can still fail.**



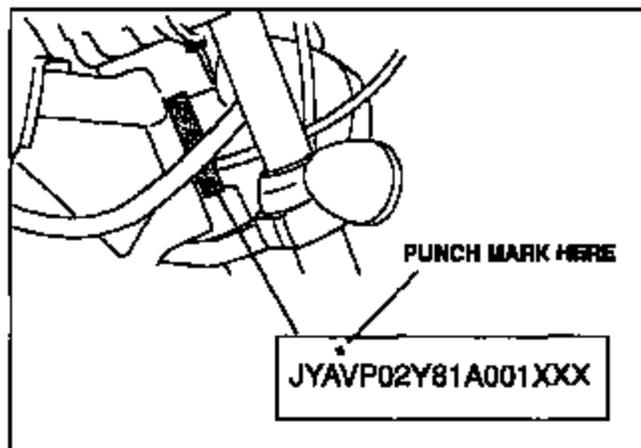
## PARTS INFORMATION

Part Number	Description	Qty	Dealer Cost
90891-10117-00	4th Pinion Gear Exchange Kit	1	\$79.49
	• Axle, Main (4WM-17411-A0-00)	• 1	
	• Gear, 4th Pinion (5VN-17141-00-00)	• 1	
	• Collar (90387-281T8-00)	• 1	
	• Washer (80209-25013-00)	• 1	
	• Circlip (93410-23058-00)	• 1	
	• Circlip (93440-28062-00)	• 1	
	• Gear, 4th Wheel (4NK-17241-02-00)	• 1	
	• Circlip (93410-25017-00)	• 1	
	• Circlip (93450-24028-00)	• 2	
	• Piston Ring Set (34L-11610-00-00)	• 2	
	• Washer, Lock (90215-25218-00)	• 1	
	• Gasket, Crankcase Cover1 (5PX-15451-00-00)	• 1	
	• Gasket, Cyl. Head 2 (4WM-11182-00-00)	• 2	
	• Gasket, Head Cover 1 (4WM-11183-00-00)	• 2	
	• Gasket, Head Cover 2( 4WM-11194-00-00)	• 2	
	• Gasket, Cyl. (4WM-11351-00-00)	• 2	
	• Gasket, Cyl. Head 1 (4WM-11181-00-00)	• 2	
	• Gasket, Exhaust Pipe (3EG-14813-00-00)	• 2	
	• Gasket, Silencer (3XW-14755-00-00)	• 2	
	• Intake Manifold O-Ring (93210-505A4-00)	• 2	
	• Gasket 1 (5PX-17929-00-00)	• 1	
	• Washer, Lock (90215-26241-00)	• 2	
	• Element Assy, Oil Cleaner (3FV-13440-10-00)	• 1	
	• O-ring (93210-06667-00)	• 1	
	• Gasket 2 (4WM-17931-00-00)	• 1	
	• Washer, Plate (90201-06087-00)	• 2	
	• Gasket (90430-10171-00)	• 4	



## IDENTIFICATION PROCEDURE

After modifying a unit, make a punch mark above the frame number (VIN) on the steering head pipe as shown in the illustration below.





## WARRANTY INFORMATION

The owner of each warranty-registered affected unit will receive a letter announcing this campaign. The letter has a label that includes the Primary ID and Recall Number. Use this information when submitting for reimbursement as described below.

The modification is authorized for all affected 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 transmission replacement as described below using Recall Number **990021**. Choose the status "M." You will be reimbursed a labor allowance of **9.0** hours, which includes a reimbursement amount for oil and other shop supplies, plus the cost of the 4th Pinion Gear Exchange Kit and your handling fee.

### YDS:

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function has recently been improved to allow you to enter multiple Primary IDs for the same recall. Remember that YDS now 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-11790-00-97) as shown below:

Dealer Number:				Dealer Name:																										
Recall Number							Primary ID.							Date Completed						Status										
9	9	0	0	2	1		V	P	0	2	E	-	0	1	4	X	X	X	0	1	-	1	5	-	2	0	0	4	M	I
												-																	M	I
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If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 8 in your Warranty and Y.E.S. Handbook (LIT-11780-00-03).



# YAMAHA

CUSTOMER SUPPORT GROUP

6555 Katella Avenue, Cypress, California 90630-5101 (714) 761-7300

## SAFETY RECALL NOTICE

January 9, 2004

Dear Yamaha Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Yamaha Motor Corporation, U.S.A., has decided that a defect which relates to motor vehicle safety exists in certain 2001 XV18 ("Road Star," "Midnight Star," and "Road Star Silverado") model motorcycles, and in 2002 and 2003 XV18 ("Road Star," "Road Star Limited Edition," "Midnight Star," and "Road Star Silverado") motorcycles. Our records show that you own the affected motorcycle shown on the label above.

**The reason for this recall:**

In affected motorcycles, certain transmission components may not meet Yamaha quality-control standards, which could allow abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

**What Yamaha and your dealer will do:**

To correct this defect, your authorized Yamaha dealer will replace certain transmission components with new ones. There will be no charge to you for this procedure. Your dealer will probably need to keep your motorcycle for at least two days to accomplish the required modification.

**What you should do now:**

Please call your Yamaha dealer to make a service appointment to have this procedure performed. At that same time you can find out how long he expects he will need to keep your motorcycle for this service. Remember to take this letter with you when you take in your Road Star or Midnight Star motorcycle.

You should not ride your motorcycle until this modification is performed. If your motorcycle's transmission needed a repair previously, you should still have this modification performed now. If those previous transmission repairs were made at your expense, you should ask the servicing Yamaha dealer to contact Yamaha Customer Relations if the failure involved a broken circlip.

If you are unable to return to the Yamaha dealer who sold you the motorcycle, this service will be performed by any authorized Yamaha Motorcycle dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha web site at: [www.yamaha-motor.com](http://www.yamaha-motor.com).

**If you need help:**

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to

Yamaha Motor Corporation, USA  
Customer Relations Department  
P.O. Box 8555  
Cypress CA 90630

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh St. SW, Washington, DC 20590 or call the Auto Safety Hotline at 888-327-4236.

**If you no longer own this Yamaha:**

If you have sold your motorcycle to another party, please call us toll-free at 1-800-227-5963 with the name and address of the new owner, along with the serial number shown above your name on the address label above.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,  
Customer Support Group  
Yamaha Motor Corporation, USA

# Technical BULLETIN

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## RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

## 2002~2003 XV17PCP, PCPC, PCR, PCRC FACTORY MODIFICATION CAMPAIGN

### I

### INTRODUCTION

Yamaha Motor Corporation, U.S.A., has determined that a defect which relates to motor vehicle safety exists in 2002 and 2003 XV17PCP, PCPC, PCR, and PCRC ("Road Star Warrior") motorcycles. In affected motorcycles, certain transmission components may not meet Yamaha quality-control standards, which could allow abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motorcycles must have certain transmission components replaced with new ones.

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 will also require modification. If you purchase a motorcycle from another dealer, 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 8 of the **Warranty and Y.E.S. Handbook (LT-11790-00-03)**.



## DEALER ACTION SUMMARY

**Modify:** All XV17PC motorcycles in the affected range.

**Parts**

**Required:** Yes. Order one 4th Pinion Gear Exchange Kit for each unit.

**Warranty:** Factory Modification Campaign. See the Warranty Information section of this bulletin.)

**Notify**

**Customers:** 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 1/8/04.



## AFFECTED RANGE

All 2002	XV17PCP
All 2002	XV17PCPC
All 2003	XV17PCR
All 2003	XV17PCRC



## SERVICE PROCEDURES

Use the XV1700 service manual (LIT-11816-15-37) for information on engine removal, disassembly, re-assembly, and installation.

The information contained in this section will give you tips or short cuts on certain procedures to help you work efficiently. For example, when disassembling the engine to access the transmission, it is not necessary to remove the camshafts, lifters, or stator assembly. Review the tips and become familiar with them before beginning work.

### PREPARATION

Properly secure the motorcycle on a suitable lift. Drain the oil from the engine, reservoir tank, and transfer case. Remove the fuel tank, exhaust system, fuel system, drive system, etc. to prepare for engine removal.

Lay the components out in order of removal and keep all the fasteners separated for each component to ease re-assembly.

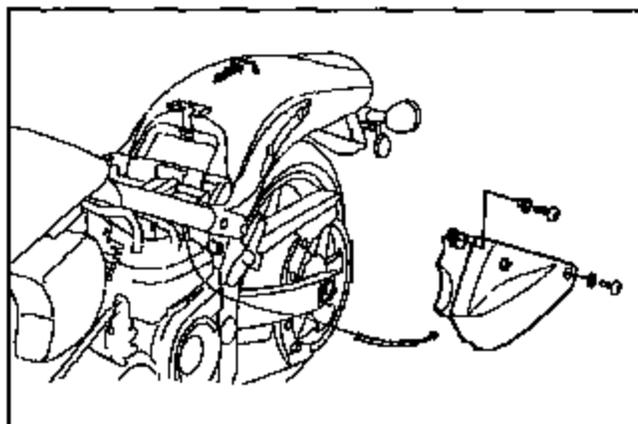
**Avoid accidental cosmetic damage. Place components such as fuel tank, side covers, and other easily damaged components in a secure and protected area. Take special care when removing and installing accessories.**

## TIPS

### Left Side Cover Removal:

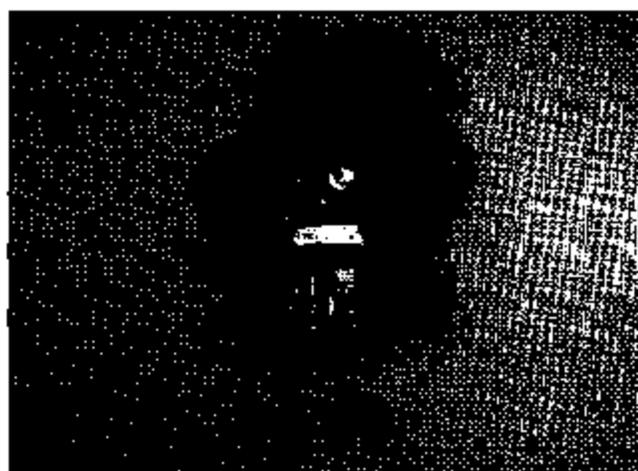
- Using a #30 tamper proof Torx® driver, remove the rear mounting bolt.
- Using a 4mm hex driver, remove the front mounting screw.
- Pull the side cover off and remove the seat latch cable from the lock.

**NOTE:** It is not necessary to remove the right side cover. Leave it attached.



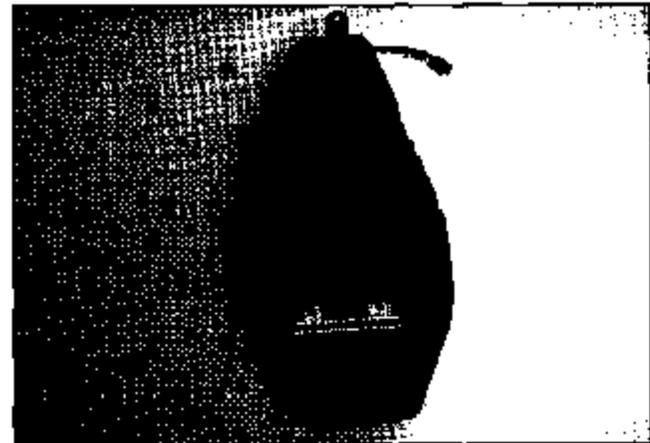
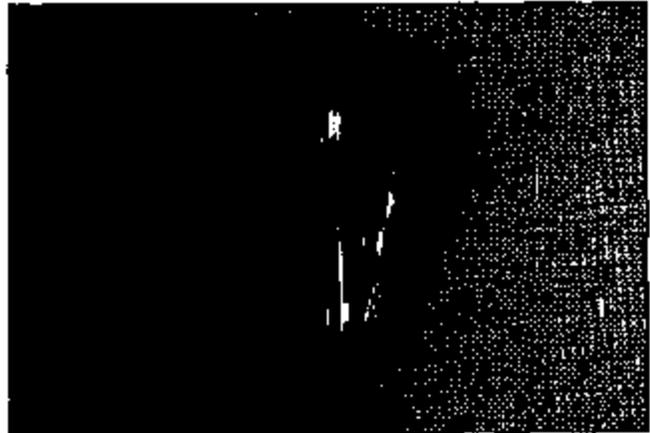
### Upper Left Engine Mount Removal:

- Remove the A.I. System vacuum hose from the control valve.
- Remove the A.I. System intake box from the air box (two Phillips screws). Leave the hose attached to the box.
- Remove the fuel return lines from the pressure regulator. Depress the gray buttons on each side of the connectors and slide them off the regulator fittings.
- Remove the four mounting bolts and the mount. Leave the fuel pressure regulator and A.I. System valves attached.



### **Air Box Removal:**

- Remove the two left side sub-air box mounting bolts. Loosen the air boot clamp and remove the left-side sub-air box.
- Disconnect the electrical coupler for the atmospheric pressure sensor from the left side of the air box.
- Remove the drain hose for the air box from the left side of the air box.
- Disconnect the electrical coupler for the air temperature sensor from the right side of the air box.
- Detach the liner control valve manifold from the right side of the air box by removing the mounting bolt. Leave the manifold attached to the liner control valve.
- Loosen the air boot clamps from the throttle bodies. Remove the front mount bolt, and then remove the air box.



### **Liner Control Valve Removal:**

- Remove the four ignition coil mounting bolts and remove the ignition coils.
- Remove the liner control valve hoses and disconnect the electrical coupler.
- Remove the liner control valve by removing the two mounting bolts.
- Remove the liner control valve mounting bracket by removing the two mounting bolts.



### Right-Hand Footrest Removal:

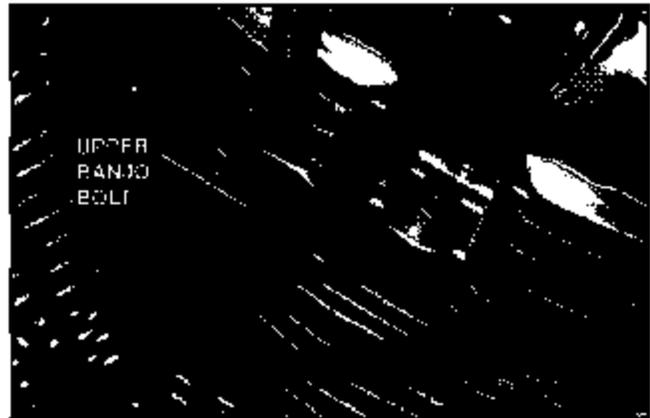
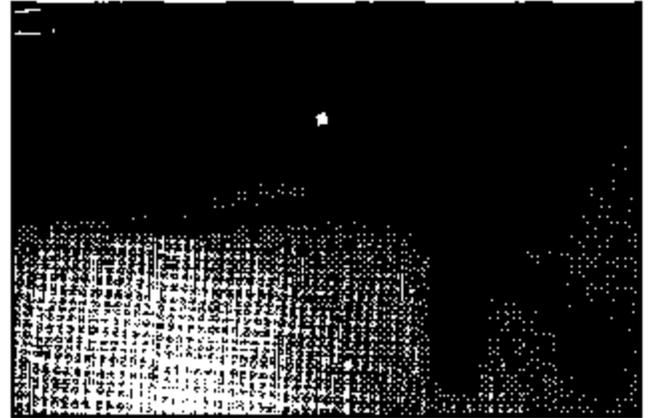
- Remove the tie wrap around the brake light switch wire lead but do not remove the switch.
- Remove the brake hose guide and the tie wrap that secures the brake hose to the frame.
- Remove the footrest assembly.

**NOTE:** Leave the brake hose attached and support the footrest as necessary so that it is out of the way.

### Cylinder Head Oil Pipe Removal/ Installation:

- Slightly loosen all three banjo bolts before removing them to prevent oil line deformation.

**NOTE:** When loosening the upper banjo bolts, hold the line in place using a wrench at the flat surface on the fitting.

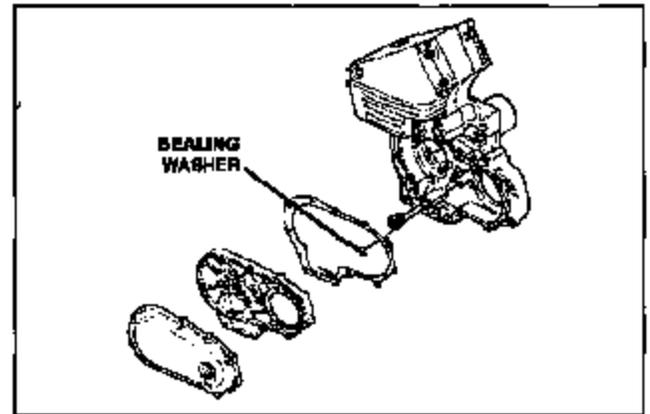


### Transfer Case Removal:

- Remove the outer chrome cover, inner cover, and drive-sprocket nut.

**NOTE:** There is a sealing washer between the inner case and the transfer case at the 8mm stud. Be sure to replace it during re-assembly.

- Remove the two chrome oil lines between the engine and oil tank.



**NOTE:** Retain the four O-rings for re-use.

- Remove the drive pulley cover and remove the drive pulley nut.
- Loosen the drive belt tension.
- Remove the drive pulley, inner cover, collar, and O-ring.

**NOTE:** The collar has a bevel on its inside diameter for the O-ring facing inward and a bevel on the outside diameter facing the pulley.

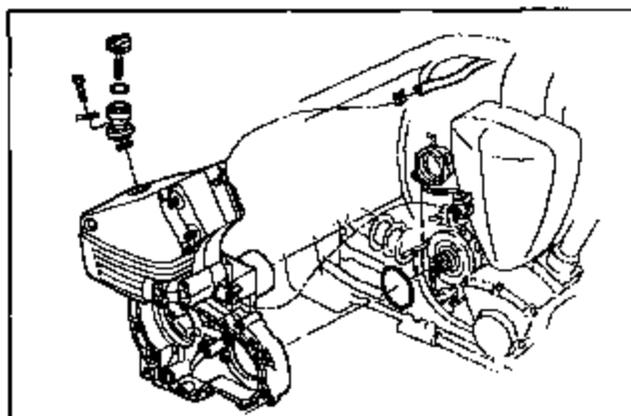


- Remove the drive and driven sprockets with chain as an assembly.

- Remove the collar and O-ring.

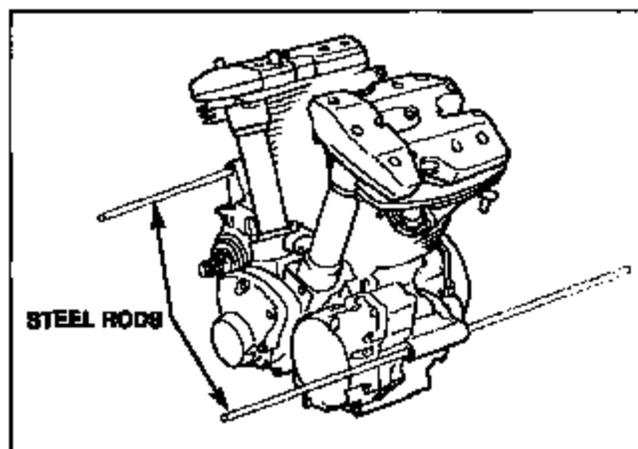
**NOTE:** Collar has a bevel on its inside diameter that faces inward for the O-ring.

- Remove oil tank filler neck.
- Slide the transfer case out from the right side.



### Engine Removal/Installation:

- When the engine is ready to be removed from the frame, be sure to disconnect all wire connectors and remove the oil filter bracket.
- Remove all engine mounting bolts and brackets.
- Protect all right side frame tubes with protective tape or an equivalent to prevent scratches.
- Insert steel rods in front and rear engine mount holes and with one person on each side of the engine lift the engine up and out to the right.



**NOTE:** Use 7/16" (10mm) steel rod at least 20" long. The steel rods used to compress the rear suspension of ATVs in their shipping crate work well.

### Engine Tear Down:

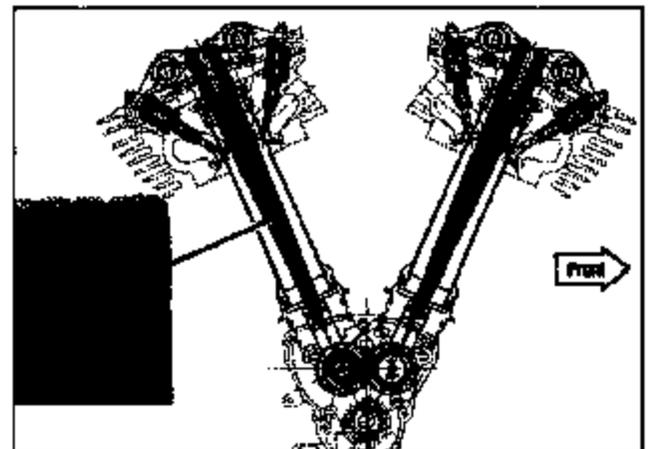
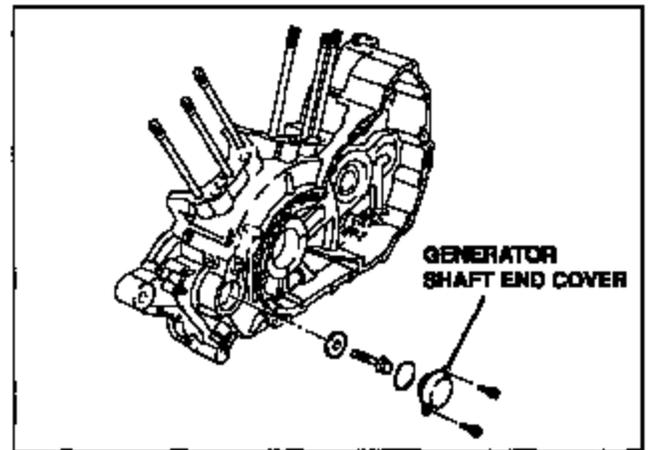
Place the engine on a work bench or work surface covered with cardboard or other protective material to protect the engine finish.

- Remove the left-hand generator shaft end cover and remove the generator shaft bolt and washer.
- Remove the clutch, primary drive gear, shift shaft, shift detent, oil pump gear and oil crossover pipe.

**NOTE:** The right side of the crossover pipe has an O-ring. If the O-ring doesn't come out with the crossover pipe, be sure to remove it while the engine is disassembled.

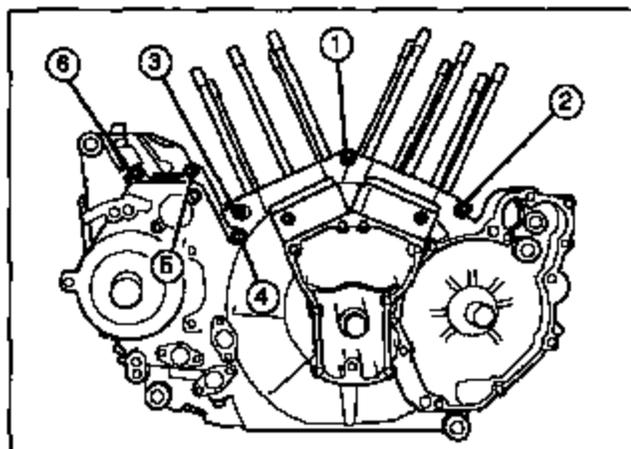
- Remove both top ends.

**NOTE:** Do not remove the push rod tubes from the crankcase. Remove only one circlip from the piston for quicker piston pin removal. The rear cylinder intake pushrod is longer than the other three. Be sure to install the longer pushrod in the correct location.

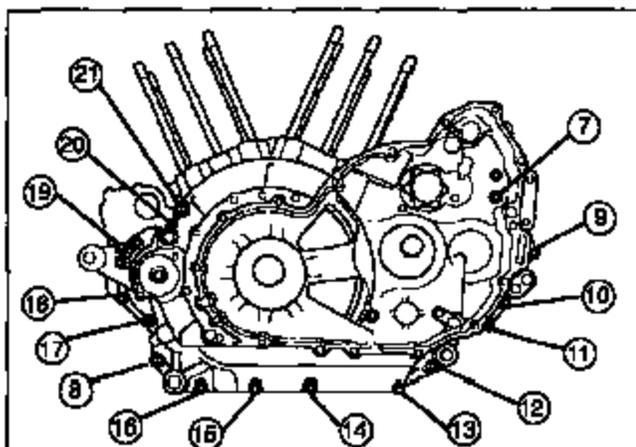


- Remove the right side crankcase bolts (three 8mm and three 6mm) only.

**NOTE:** Do not remove the cam cover or generator cover.

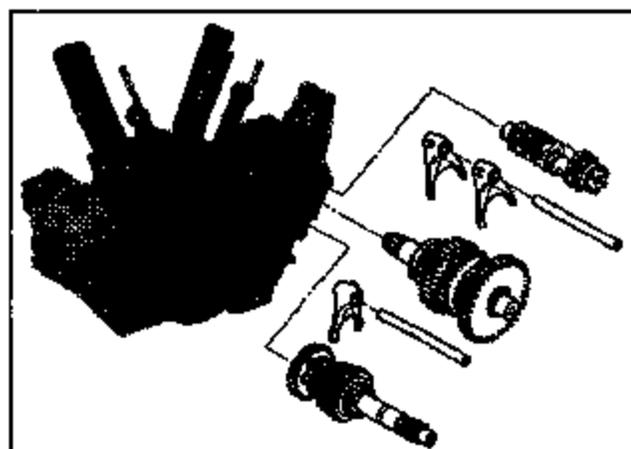


- Tilt the engine to the right and rest the cam cover against a block covered with cardboard or other protective material to protect the engine finish. Remove the left-side crankcase bolts (6mm bolts, quantity 15).
- Align the shift cam segment with the segment-shaped hole in the crankcase.
- While holding the crankshaft against the right crankcase, remove the left crankcase half.



**Be sure to hold the crankshaft against the right case half to prevent disengagement of the camshaft drive gear.**

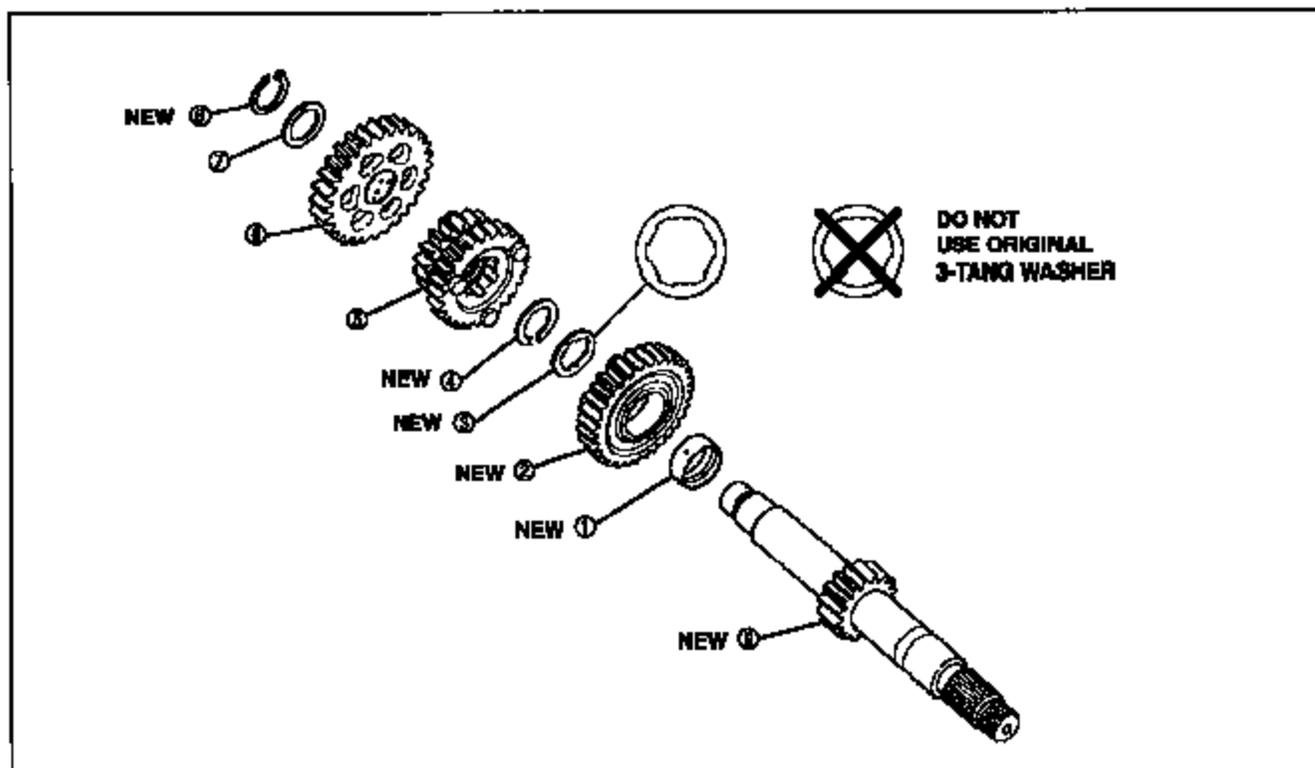
- Remove the shift fork shafts, shift forks, and transmission.



### Main Shaft Modification:

- Completely disassemble the main shaft. The Washer ⑦, 5th Pinion Gear ⑥, and 2nd/3rd Pinion Gear ⑤ will be reused.
- Install the components on the new-type Main Shaft ⑧ in the following order. Lubricate all components with engine oil. Be sure circlips are installed with the sharp edge of the Inner diameter facing away from the mating washer.

- ① Collar – NEW
- ② 4th Pinion Gear – NEW
- ③ Washer – NEW
- ④ Circlip – NEW
- ⑤ 2nd/3rd Pinion Gear – Reuse original part
- ⑥ 5th Pinion Gear – Reuse original part
- ⑦ Washer – Reuse original part
- ⑧ Circlip – NEW

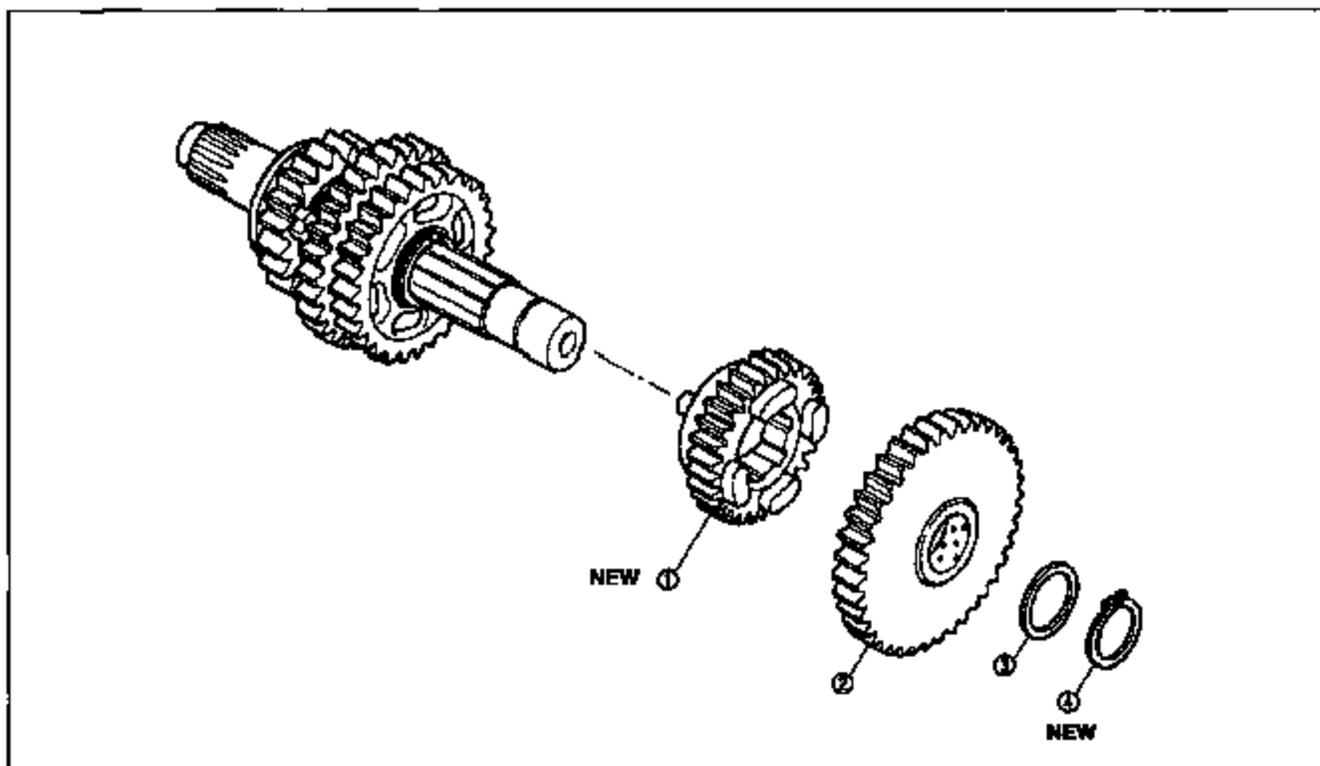


### **⚠ WARNING**

Be sure to use all of the new parts in the kit. Otherwise, the transmission can still fail. Be sure that you are installing the new washer ③. It is thicker than the original and can be easily identified by its six tangs on the inner diameter instead of the three on the original washer.

### Drive Shaft Modification:

- Remove the circlip and washer from the Drive Shaft, then remove the 1st Wheel Gear and the 4th Wheel Gear. Do not disassemble the rest of the components on the shaft.
  - Install the components on the original Drive Shaft in the following order. Lubricate all components with engine oil. Be sure the circlip is installed with the sharp edge of the inner diameter facing away from the mating washer.
- ① 4th Wheel Gear – NEW
  - ② 1st Wheel Gear – Reuse original part
  - ③ Washer – Reuse original part
  - ④ Circlip – NEW



### **⚠ WARNING**

**Be sure to use all of the new parts in the kit. Otherwise, the transmission can still fail.**



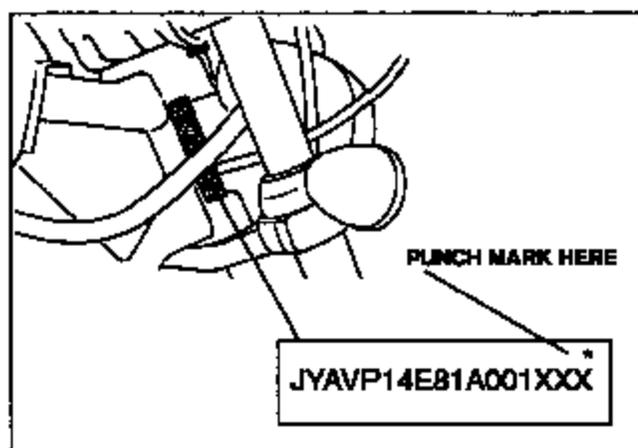
## PARTS INFORMATION

Part Number	Description	Qty	Dealer Cost
90891-10119-00	4th Pinion Gear Exchange Kit	1	\$81.85
	• Axle, Main (5PX-17411-A0-00)	• 1	
	• Gear, 4th Pinion (5PX-17141-20-00)	• 1	
	• Collar (90387-281TB-00)	• 1	
	• Washer (90209-25013-00)	• 1	
	• Circlip (93410-23056-00)	• 1	
	• Circlip (93440-28082-00)	• 1	
	• Circlip (93450-24028-00)	• 2	
	• Piston Fling Set (34L-11610-00-00)	• 2	
	• Gear, 4th Wheel (5PX-17241-01-00)	• 1	
	• Circlip (93410-25017-00)	• 1	
	• Washer, Lock (90215-25218-00)	• 1	
	• Gasket, Crankcase Cover 1 (5PX-15451-00-00)	• 1	
	• Gasket, Cyl. Head 2 (5PX-11182-00-00)	• 2	
	• Gasket, Head Cover 1 (5PX-11193-00-00)	• 2	
	• Gasket, Cyl. (4WM-11351-00-00)	• 2	
	• Gasket, Cyl. Head 1 (5PX-11181-00-00)	• 2	
	• Gasket, Exhaust Pipe (3EG-14613-00-00)	• 3	
	• Gasket, Silencer (5PX-14755-00-00)	• 1	
	• Gasket, Silencer (4WM-14755-00-00)	• 1	
	• Seal (5PX-14239-00)	• 2	
	• Gasket 1 (5PX-17929-00-00)	• 1	
	• Washer, Lock (90215-26241-00)	• 2	
	• Element Assy, Oil Cleaner (3FV-13440-10-00)	• 1	
	• O-ring (93210-06667-00)	• 1	
	• Gasket 2 (4WM-17931-00-00)	• 1	
	• Washer, Plate (90201-08087-00)	• 2	
	• Gasket (90430-10171-00)	• 4	



## IDENTIFICATION PROCEDURE

After modifying a unit, make a punch mark above the frame number (VIN) on the steering head pipe as shown in the illustration below.





## WARRANTY INFORMATION

The owner of each warranty-registered affected unit will receive a letter announcing this campaign. The letter has a label that includes the Primary ID and Recall Number. Use this information when submitting for reimbursement as described below.

The modification is authorized for all affected 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 transmission replacement as described below using Recall Number **990022**. Choose the status "M." You will be reimbursed a labor allowance of **9.5** hours, which includes a reimbursement amount for oil and other shop supplies, plus the cost of the 4th Pinion Gear Exchange Kit and your handling fee.

### YDS:

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function has recently been improved to allow you to enter multiple Primary IDs for the same recall. Remember that YDS now 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-11790-00-97) as shown below:

If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 8 in your Warranty and Y.E.S. Handbook (LIT-11760-00-03).

Dealer Number: <input type="text"/>		Dealer Name: <input type="text"/>															
<b>Recall Number</b>		<b>Primary ID</b>		<b>Date Completed</b>		<b>Status</b>											
9	9	0	0	2	2	0	1	-	1	5	-	2	0	0	4	M	
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# YAMAHA

CUSTOMER SUPPORT GROUP

6555 Katella Avenue, Cypress, California 90630-5101 (714) 761-7300

## SAFETY RECALL NOTICE

January 8, 2004

Dear Yamaha Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Yamaha Motor Corporation, U.S.A., has decided that a defect which relates to motor vehicle safety exists in 2002 and 2003 XV17PCP, PCPC, PCR, and PCRC ("Road Star Warrior") motorcycles.

**The reason for this recall:**

In affected motorcycles, certain transmission components may not meet Yamaha quality-control standards, which could allow abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and a vehicle crash with injury or death.

**What Yamaha and your dealer will do:**

To correct this defect, your authorized Yamaha dealer will replace certain transmission components with new ones. There will be no charge to you for this procedure. Your dealer will probably need to keep your motorcycle for at least two days to accomplish the required modification.

**What you should do now:**

Please call your Yamaha dealer to make a service appointment to have this procedure performed. At that same time you can find out how long he expects he will need to keep your motorcycle for this service. Remember to take this letter with you when you take in your Road Star or Midnight Star motorcycle.

You should not ride your motorcycle until this modification is performed. If your motorcycle's transmission needed a repair previously, you should still have this modification performed now. If those previous transmission repairs were made at your expense, you should ask the servicing Yamaha dealer to contact Yamaha Customer Relations if the failure involved a broken circlip.

If you are unable to return to the Yamaha dealer who sold you the motorcycle, this service will be performed by any authorized Yamaha Motorcycle dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha web site at: [www.yamaha-motor.com](http://www.yamaha-motor.com).

**If you need help:**

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to

Yamaha Motor Corporation, USA  
Customer Relations Department  
P.O. Box 6555  
Cypress CA 90630

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh St. SW, Washington, DC 20590 or call the Auto Safety Hotline at 888-327-4238.

**If you no longer own this Yamaha:**

If you have sold your motorcycle to another party, please call us toll-free at 1-800-227-5963 with the name and address of the new owner, along with the serial number shown above your name on the address label above.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,  
Customer Support Group  
Yamaha Motor Corporation, USA