

VX750S

EXHAUST PIPE BREAKAGE

INTRODUCTION

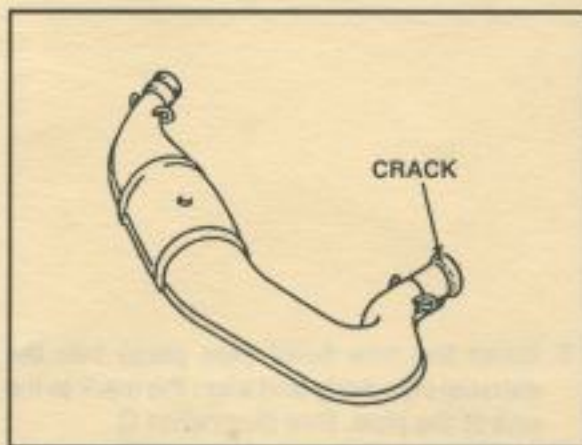
When used extensively on rough trails, the exhaust pipe may crack at the header pipe joint area. Refer to the illustration.

PROBLEM: Excessive wear and subsequent cracking in the header pipe to "Y"-pipe joint area.

CAUSE: Insufficient material thickness.

REMEDY: Repair the exhaust pipe by cutting off the cracked head pipe and welding a new head pipe piece in its place. Replace the pipe #2 (LH) securing spring with a new shorter spring.

NOTE: The new head pipe piece is the same as used in production on the 1993 model.



DEALER ACTION SUMMARY

REPAIR: All failed units

PARTS REQUIRED: Yes

NOTE: On all sold units, inspect the inner contact area of the header pipes for excessive wear or cracking, repairing the pipes as necessary.

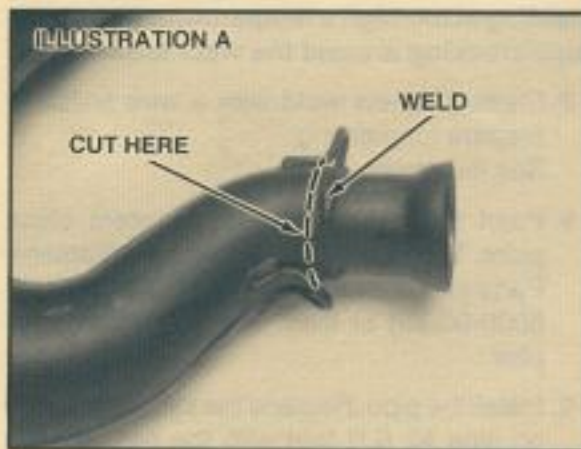
WARRANTY: Service-Per-Bulletin

AFFECTED UNITS

VX750S All

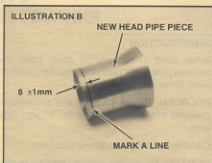
SERVICE PROCEDURES

1. Remove the exhaust pipe(s).
2. Separate the head pipe (joint) from the exhaust pipe body by cutting the pipe just behind the weld. Use a hacksaw for this procedure. See Illustration A.
3. Remove the burrs from cut areas of the pipe body.

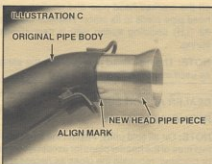


SERVICE PROCEDURES (Cont'd.)

4. Mark a line 6mm from the base of the new head pipe piece.
See Illustration B.



5. Insert the new head pipe piece into the exhaust pipe body and align the mark to the end of the pipe. See Illustration C.
6. Tack weld the new head pipe piece to the exhaust pipe body to prepare for welding.
Check the alignment again.



NOTE: If the unit is available, temporarily install the pipe. Check the alignment of the new head pipe piece. Make sure the exhaust pipe fits securely to prevent leaks.

7. Weld the two pieces together securely.

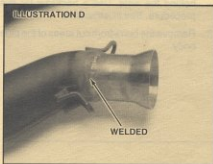
NOTE: WELDING RECOMMENDATIONS:

- 1st Choice - Inert gas electric welding (Tig or Mig)
- 2nd Choice - Oxygen/Acetylene using steel rod.

CAUTION:

Use low heat when welding with gas. Gas welding at too high a temperature can cause pipe cracking around the weld area.

8. Clean the new weld with a wire brush to prepare for painting.
See Illustration D.
9. Paint the pipe with heat resistant black paint. This paint is available from Yamaha Parts and Accessories (Part Number PNT-0000-00-75) or from any auto parts supplier.
10. Install the pipe. Replace the securing spring on pipe #2 (LH top) with the new shorter spring for a tighter pipe fit.



PARTS INFORMATION

Part Number	Description	Remarks	Dealer Cost
90891-50123-00	Exhaust pipe joint	1 req'd per pipe	\$3.60
90506-16386-00	Spring	1 req'd for LH pipe	1.10

WARRANTY INFORMATION

Dealers can perform these repairs with proper welding equipment, or send the pipe out to an outside source for repair.

To receive credit for these repairs, submit a standard Service-per-bulletin warranty request. The labor allowance for this repair is 1.5 hours per pipe. Use Problem code **90LA1** for the repair of one exhaust pipe or **90LA2** for the repair of both pipes. (Both problem codes include an allowance for 1 spring).

As with all warranty repairs, tag and hold the cracked head pipe piece(s) that was removed for 90 days from the date you submit the warranty request.

NOTE: If the exhaust pipe in question is damaged beyond repair, contact your Regional Technical Advisor (RTA) to request replacement authorization.

FOR REPAIR OF ONE EXHAUST PIPE

YAMAHA		
(01) What is the primary ID of this unit?	(02) How many miles/km were on the unit at the time of failure?	(03) On what date did the failure occur?
(04) On what date was the repair finished?	90LA1 (05) What problem code best describes the failure?	(06) Is this unit under tag (RTA) if unit is unused and you are not the invoiced dealer since the invoiced dealer number.
NOTE: Do not tape over the arrow (A) on the original.		RTA

FOR REPAIR OF BOTH EXHAUST PIPES

YAMAHA		
(01) What is the primary ID of this unit?	(02) How many miles/km were on the unit at the time of failure?	(03) On what date did the failure occur?
(04) On what date was the repair finished?	90LA2 (05) What problem code best describes the failure?	(06) Is this unit under tag (RTA) if unit is unused and you are not the invoiced dealer since the invoiced dealer number.
NOTE: Do not tape over the arrow (A) on the original.		RTA

VX750S

CLUTCH UPDATE

High-Altitude Elevation Units (5000 to 10,000 Feet)

INTRODUCTION

This bulletin describes primary and secondary clutch modifications necessary to improve high altitude clutch performance on the VX750S.

PROBLEM: Poor clutch performance and poor V-belt life.

SYMPTOM: Inconsistent shift rpm, sluggish backshift, and poor V-belt life.

CAUSE: Binding of the secondary clutch and incorrect gearing.

REMEDY: Install the parts recommended in this bulletin.

DEALER ACTION SUMMARY

MODIFY: Any affected unit exhibiting the above symptoms. Modify unsold units in your inventory.

PARTS REQUIRED: Yes

WARRANTY: Service-Per-Bulletin. Follow the instructions in the Warranty Information section of this bulletin.

NOTIFY CUSTOMER: Yes. A letter explaining that authorized Yamaha dealers have updated Vmax-4 specifications is being mailed to each registered customer from Yamaha (a copy is attached).

AFFECTED UNITS

All VX750S (89A-000101 - 002710)

NOTE: This bulletin applies specifically to units operated primarily between 5000 and 10,000 ft. elevation. Refer to Technical Bulletin S92-011 for update for units used mainly at elevations below 5000 ft.

SERVICE PROCEDURES

NOTE: Before proceeding with the following steps, make sure you first watch the 1992 Vmax-4 Clutch Update video, and read Chapter 4 of your VX750S Service Manual (LIT-12618-01-35) or the VX750S microfiche Service Manual. Keep the service manual handy as you do this modification. Also, make sure you have all the special tools required to perform the modifications described in this bulletin. These tools are listed in the above mentioned chapter of the service manual and in special tool bulletins S91-010 and S92-007. The procedures in this bulletin are in conjunction with the Service Manual.

Primary Clutch

Disassembly

1. Remove the primary clutch from the unit according to the service manual.
2. Remove the primary clutch cap and spring.
3. Remove the roller and weight assemblies.

Preparation for Assembly

1. Remove the bushings from the roller and weight assemblies. Use the new YXR Clutch Bushing Jig Kit (Technical Bulletin S92-007). Install the new Duralon bushings with the jig.
2. Refer to the revised Service Data (dated 9/1/92) for rivet specifications for the elevation. Change the rivets if necessary.

Service Procedures (Cont'd.)

3. Remove any burrs from the pins before re-assembly.

Reassembly

1. Install the roller and weight assemblies.

NOTE: As shown in the service manual, install the bolts so that they are all facing in the same direction.

2. Reassemble the primary clutch according to the service manual.

NOTE:

- Refer to the revised service data for the primary spring specification.
 - Pay close attention to the procedures in the service manual. Make sure to use Loctite® in the proper places and follow all torque recommendations listed in the service manual. Pay close attention to the "X" mark and proper clutch cap alignment procedures in the service manual.
3. Clean the taper area on the primary sheave and countershaft. Then install the primary clutch assembly as shown in the service manual. Make sure to properly torque the primary clutch bolt twice as instructed in the service manual.

Secondary Clutch

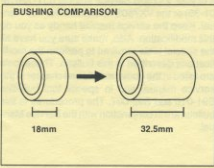
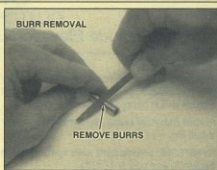
Study the following service procedures before starting the Secondary Clutch modifications.

Disassembly

1. Remove the secondary clutch (secondary sheave assembly).
2. Remove the circlip, washer, torque cam (spring seat), and spring.
3. Remove the secondary sliding sheave.

Preparation for Reassembly

Important! Inspect the secondary sliding sheave small bushing to see if the originally installed 18mm wide bushing has been replaced with the updated 32.5mm bushing as instruction in Technical Bulletin S92-001. If the original bushing (18mm) has not been replaced, follow the machining instructions in Technical Bulletin S92-001.



Service Procedures (Cont'd.)

1. If the unit has not been operated, but Technical Bulletin S92-001 was performed, go to step 5.
2. If the unit has been operated, remove both the large and small bushings from the secondary sliding sheave, then go to step 3.

NOTE: For easier removal, cut slots in the bushing using a hacksaw blade and then tap out the bushing.

3. Using a cylinder bore gauge, measure the small bushing bore diameter to make sure the machining mentioned in Technical Bulletin was done correctly. The maximum allowable bore diameter is 45.99mm (1.811 inch). If the bore size is correct, install the new small and large bushing as instructed in the following step 4.

CAUTION:

Replace the secondary sliding sheave assembly if the bore size was machined too large. Otherwise, the new small bushing may fall out during operation. A new secondary sliding sheave already has the new bushings and ramp shoes installed, so go to step 6.

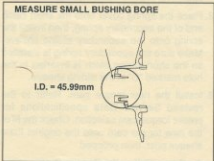
4. Apply Loctite® #271 to the outer circumference of the small and large bushing and install them into the sliding sheave using a press. Some heat will ease installation of the bushings.
5. Check the material and condition of the ramp shoes.

BUSHING REMOVAL



CUT WITH HACKSAW

MEASURE SMALL BUSHING BORE



I.D. = 45.99mm

PRESSING A BUSHING



NOTE: As a production change, the material of the ramp shoes was changed from nylon to PEEK. The nylon ramp shoes are a translucent white color, while the PEEK ramp shoes are an off-white (almond) color. **DO NOT** use the nylon ramp shoes regardless of their condition.

- If the ramp shoes are nylon, remove and replace them as a set with the PEEK type.
 - If the ramp shoes are of the PEEK type, remove them and rotate 180° so the unused side is against the new torque cam.
6. Clean the secondary fixed sheave post, making sure it is free of grease, rust, and/or dirt.
 7. Remove the retainer plate from the old torque cam. You will reuse this retainer plate with the new torque cam.

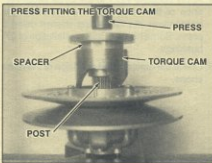
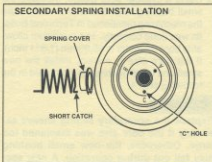
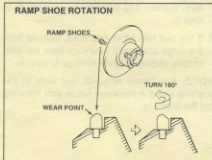
Reassembly

1. Install the secondary sliding sheave assembly onto the fixed sheave, following the instructions in the service manual.
2. Place the spring cover onto the short catch end of the secondary spring, then install the spring onto the secondary sliding sheave. Make sure the secondary spring is installed so the short spring catch is inserted in the hole marked "C" in the sliding sheave.
3. Install the new torque cam. Refer to the revised Service Data specifications for proper torque cam selection. Check the fit of the new torque cam onto the original fixed sheave post, then proceed.

A. Press Fitting the Torque Cam

Because of close production tolerances, in some cases the new torque cam may initially fit onto the fixed sheave post so tightly that a press may be required to install the torque cam. If this is the case, proceed with the following:

- a) After placing the sliding sheave, spring cover, and spring, onto the fixed sheave as instructed in Step 2, secure the sliding sheave assembly into the press and place the torque cam onto the post. Using a steel plate and spacer (such as the spacer from crankshaft puller YU-90059 or fork seal installer YM-34482), press the torque cam onto the post slightly. Make sure that the long catch on the



Service Procedures (Cont'd.)

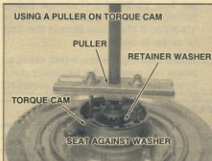
secondary spring is inserted into the hole marked "3" on the torque cam. Before pressing the torque cam onto the post completely, preload the secondary spring by rotating the sliding sheave counterclockwise approximately 90°. Now, press the torque cam onto the post the rest of the way until about 12mm (1/2 inch) of the spline protrudes above the top of the torque cam.

- b) Install the retainer, washer and circlip.
- c) If the torque cam is not seated flush against the retainer washer, use a general puller to pull the torque cam back out against the retainer washer. Refer to the illustration.
- d) Using Loctite® #242, install the retainer screws and tighten.

B. Slip Fitting the Torque Cam

If the torque cam will slide easily onto the fixed sheave post, proceed with the following assembly instructions:

- a) After placing the sliding sheave, spring cover, and spring onto the fixed sheave as instructed in step 2, install the new torque cam by aligning the splines and the spring catch to the hole marked "3" on the torque cam. Push the torque cam onto the post just enough to engage the spring catch.
 - b) Before pushing the torque cam completely onto the fixed sheave post, preload the secondary spring by rotating the sliding sheave counterclockwise approximately 90°.
 - c) Push the torque cam on all the way, then install the retainer, retainer washer and circlip.
 - d) Using Loctite® #242, install and tighten the retainer securing screws.
4. After assembly of the secondary clutch is complete, test the spring preload by turning the sliding sheave counterclockwise to make sure the spring catches are seated. If the either spring catch dislodges, remove the torque cam and repeat Steps 2 & 3 of the reassembly procedure.



CAUTION:

Never allow the sliding sheave to snap back freely. This can damage the ramp shoes.

- Clean any dirt and/or rust off the secondary jackshaft and apply a light coat of grease.
- Install the secondary clutch assembly as instructed in the service manual.
- Following the procedures in the service manual, check the clutch offset and center-to-center distance. Use the new 16mm Offset Tool YS-39506-5 (Technical Bulletin S92-007) for checking clutch offset and tool YS-39506-2 (Technical Bulletin S91-010) for center-to-center.
- Before installing the new V-Belt, check for proper belt height in the secondary clutch by wrapping the belt around the secondary

clutch sheaves. Adjust the number of shims to achieve the correct V-belt height. V-belt height adjustment instructions are explained in the service manual and assembly manual.

- Install the new V-belt
- For maximum performance, be sure to check these normal maintenance items:
 - Hylax (slide runner) condition
 - Track tension and alignment
 - Ski runner condition

Gearing

Drain the chain case oil, then remove the chain case cover. Check the gearing setting for the intended elevation, referring to the revised Service Data (dated 9/1/92) for recommendations.

PARTS INFORMATION

The clutch performance update parts are available from Yamaha Parts and Accessories Division. Order enough to modify any VX750S you have sold or may still have in your inventory.

The following parts will be used on all units:

Part Number	Description	Qty.	Remarks	Dealer Cost
90380-08221-00	Duralon Weight/Roller Bushings	6		\$ 2.60
89A-17684-9A-00*	Torque Cam (nickel plating)	1	39" for 5000 to 8000 ft.	TBA
89A-17684-6A-00*	Torque Cam (nickel plating)	1	36" for 7000 ft. and above	TBA
8AX-17674-00-00	Secondary Spring Cover	1	Prevents wear	8.30

*Choose the appropriate Torque Cam for the altitude.

The following additional parts may be needed:

Part Number	Description	Qty.	Remarks	Dealer Cost
90380-38220-00	Secondary Small Bushing (Duralon)	1	Width: 32.5	9.10
90380-96207-00	Secondary Large Bushing (Duralon)	1		23.00
89A-17688-10-00	PEEK Ramp Shoe	3		TBA
89A-17670-10-00	Secondary Sliding Sheave Ass'y.	1	Replace only if original was machined improperly	110.40
90261-06019-00	Aluminum Weight Rivet	3	5000 to 8000 ft	0.35
89A-47587-70-00	37T Driven Gear	1	5000 ft. and above	23.10
94880-03068-00	68L Chain	1	5000 ft. and above	47.25
89A-17641-00-00	V-Belt	1	Replacement recommended on units in use	49.95

Parts Information (Cont'd.)

NOTE: You should have the appropriate jets on hand to setup any unsold units for the intended altitude. Some quantities of clutch wear parts should also be in your inventory, such as rollers, sliders, V-belts, bolts, plastic washers, set screws, weight and roller pins. Check your parts inventory and order any necessary parts from YPAD if your stock is depleted or low.

Both types of Loctite® required for this job are normal shop supplies and available from YPAD. See your YPAD Accessories Catalog for part numbers.

NOTE: Parts on this technical bulletin are not eligible for the Snowmobile Parts Dating Program.

WARRANTY INFORMATION

This warranty repair is authorized for all units which are usually operated in high elevation (5000 feet and above), regardless of ownership.

To receive credit for the cost of the primary clutch Duralon bushings, the torque cam and the secondary spring cover, and the labor to update the clutches, file a standard service-per-bulletin warranty request. The labor allowance is 1.2 hours. Use Problem Code 90LD2. For more information about Service-Per-Bulletin warranty requests, read Chapter 11, Section I of your Warranty Handbook.

YAMAHA		
(Q1) What is the primary ID of the unit?	(Q2) How many total hours were on the unit at the time of failure?	(Q3) On what date did the failure occur?
(Q4) On what date was the repair finished?	90LD2 (Q5) What problem code best describes the failure?	(Q6) Is this unit model 130 (1991) or unit is unsold and you are not the invoice dealer, enter the invoice dealer number.
NOTE: Do not tape over the circles (1) on the product.		
		RETURN

NOTE: If a new, unsold unit must be rejected or the primary spring changed to match the latest high-altitude service data, claim parts reimbursement on the High-Altitude Compensation form, not a warranty request.

(Warranty Information continued on following page.)

Warranty Information (Cont'd.)

If other parts were required, such as replacement of the large and small secondary bushings, PEEK ramp shoes, and gearing components as discussed in the service procedures, submit a second standard warranty request for parts only. Complete the request as usual. However, be sure to insert the date of this bulletin, 9-15-92, as the failure date. For Reason for Delay (line 7), as well as Problem, Defect, and Repairs (lines 13, 14, and 15), fill in this bulletin's number, S92-010.

All of these **additional-parts** warranty requests must be submitted by **March 31, 1993**. Requests received after this date will not be considered.

NOTE: These additional-parts warranty requests are covered as a factory-authorized campaign under the normal product warranty and are not eligible under Yamaha Extended Service (Y.E.S.).

NOTE: SECONDARY SLIDING SHEAVE: If the secondary sliding sheave must be machined to complete this modification, follow the instructions on Technical Bulletin S92-001 for reimbursement. If the secondary sliding sheave is damaged and requires replacement, call your Regional Technical Advisor and request replacement authorization.

V-BELTS: Installing a new V-belt is recommended with the installation of these clutch performance update parts. Because V-belts are considered normal wear items and, in most cases already have a season of wear, replacement cost is the customer's responsibility.

As with all warranty repairs, tag and hold the parts removed for 90 days from the date you submit the warranty request.

YAMAHA		Warranty Request	
What is your dealer name? _____		ADDRESS _____	
What is your dealer number? _____		CITY _____	
201 State or ZIP (please do not omit) _____ 202 How many replacement parts do you want at the time of failure? <u>07 16 92</u>		203 Other state ZIP the nearest dealer _____ 204 Check box if used <input type="checkbox"/> This one is the normal dealer. Also include dealer number.	
205 If there was a repair delay, explain: <u>S92-010</u>		206 Describe the failure: _____	
207 List the primary failed part and (2) quantity: _____		208 _____	
List the additional parts and quantity:			
209	210	211	212
209	210	211	212
209	210	211	212
209	210	211	212
209	210	211	212
209	210	211	212
209 Check box if this customer lost a case: <input type="checkbox"/>			
List 200 codes and multiples used:			
213	214	215	216
213	214	215	216
217 List any extra labor (in hours) billed and give the reason for the request: _____			
218 Reason: _____			
219 List any extra labor and attach the receipt: _____			
220 What was the problem? Describe the symptoms prior to repair: <u>S92-010</u>			
221 Describe the defect in materials, parts, or workmanship: <u>S92-010</u>			
222 What was done to repair the defect? What action was taken to remedy the problem: <u>S92-010</u>			
YAMAHA INC.		YAMAHA MOTOR CO., LTD.	

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

6555 KATELLA AVENUE • CYPRESS, CALIFORNIA 90630
MAIL ADDRESS: P.O. BOX 6555, CYPRESS, CALIFORNIA 90630
PHONE: (714) 761-7300

Dear Yamaha Vmax-4 Owner:

Last season, **American Snowmobiler** and **Snowgoer** magazines both picked the Vmax-4 as Snowmobile of the Year.

This year we want to be even better! We have just supplied your Yamaha dealer with the most up-to-date information about the Vmax-4. The latest tuning specifications. The latest clutch information. And many other tips your dealer can use to help you get the most from the best snowmobile around.

Your Vmax-4 deserves a good pre-season service of normal maintenance items. While your dealer is performing this service for you, he will also perform any applicable updates for you that are covered by warranty.

Please call your dealer as soon as possible to arrange an appointment for your pre-season service. He will need to schedule time for the update work, and for any other work you need to have performed. He'll also want to be sure he has all the parts on hand before you come in. Please don't delay, because some update work will only be eligible for warranty coverage when performed before March 31, 1993.

Thank you again for choosing a Yamaha Vmax-4, the most exciting snowmobile ever produced. Now get ready for an even more exciting ride this year!

Sincerely,

Yamaha Service Division

ROUTE TO:

 SERVICE PARTS WARRANTY SALES

PAGE 9 OF 9

VX750S

REAR SUSPENSION STOPPERS

INTRODUCTION

Under certain conditions, the rear suspension shock absorber can bottom out before the rear rail stoppers contact suspension arm 2. Severe, abrupt bottoming of the rear suspension can cause damage to the rear suspension components and/or frame tunnel.

REMEDY: Remove the original stoppers and install new, taller rear frame rail stoppers. The

new rear frame rail stoppers are the same as those used in production on the 1993 VX750T.

NOTE: If the original rear rail stoppers have already been changed to the taller VK (83R) style rear stoppers, which will correct the problem, this modification is not necessary.

DEALER ACTION SUMMARY

UNSOLD UNITS: Modify all unsold units in your inventory during predelivery setup.

SOLD UNITS: Notify all customers who have purchased affected units. Make arrangements for these units to be brought in for repair. To help you contact your customers, a list of all units sold and registered by your dealership is included with this bulletin.

PARTS REQUIRED: Yes

WARRANTY: Service-per-bulletin

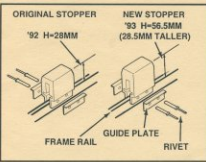
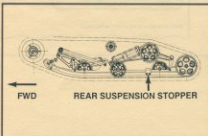
NOTE: No warranty or Y.E.S. coverage will be considered for frame tunnel damage on units which have not been modified according to this bulletin.

AFFECTED UNITS

VX750S All

SERVICE PROCEDURES

1. Remove the original rear suspension stoppers by drilling out the rivets with a 3/16 inch drill bit.
2. Using a rivet gun, install the new, taller rear suspension stoppers. Be sure to use the new guide plates in each side of the stopper.



PARTS INFORMATION

Repair parts must be ordered from Yamaha Parts and Accessories. These parts will **not** be shipped automatically.

Description	Part Number	Qty.
Stopper	8AX-47457-00-00	2
Guide Plate	8AX-47458-00-00	4
Rivets	90267-48062-00	4

WARRANTY INFORMATION

This modification is authorized for all affected units, regardless of ownership or warranty status. To receive credit for the parts and labor, submit a standard Service-Per-Bulletin warranty request. The labor allowance is 0.3 hours. The Problem Code is **90KZ**. Refer to your Warranty Handbook, Chapter 11, Section I for more information concerning Service-Per-Bulletin warranty requests. As with all warranty

repairs, tag and hold the original parts that were removed for 90 days from the date you submit the warranty request.

NOTE: If the unit has suffered frame tunnel damage as a result of the above problem, contact your RTA to discuss repair authorization. Warranty replacement of frame tunnels on units which do not have the new taller rear suspension stoppers will not be considered.

YAMAHA

(01) What is the primary ID of this unit?

(02) How many states/hours were on the unit at the time of failure?

(03) On what date did the failure occur?

(04) On what date was the repair finished?

90KZ
(05) What problem code best describes the failure?

(06) Is this unit covered by (01) and (02) and you are not the involved dealer enter the involved dealer number.

NOTE: Do not tape past the arrow (→) on the printout.

(Print)

VX750S

SECONDARY CLUTCH PERFORMANCE IMPROVEMENT

INTRODUCTION

This bulletin describes secondary clutch modifications necessary to prevent the secondary clutch from binding.

PROBLEM: Inconsistent shift rpm.

SYMPTOM: Poor performance - The shift rpm is either high or low, and clutch backshifting can be slow. Standard shift rpm is 8000 - 8250. Shifting that occurs below 7800 rpm is too low and shifting above 8500 rpm is too high.

CAUSE: Binding of the secondary sliding sheave against the post and torque cam.

REMEDY: Install a new longer center bushing into the secondary sliding sheave. This requires machining with a lathe. Also, polish the spring seat (torque cam).

NOTE: Overall performance depends upon proper jetting. Check the revised Service Data dated 1-6-92 for the latest jetting recommendations.

DEALER ACTION SUMMARY

MODIFY: Any affected unit exhibiting the above symptoms.

WARRANTY: Normal warranty applies. Follow instructions in this bulletin.

PARTS REQUIRED: Yes

AFFECTED UNITS

All VX750S (89A-000101 - 002710)

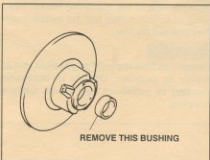
SERVICE PROCEDURES

If the unit appears to have incorrect shift rpm, check the unit's tachometer against another known good tachometer. If there is a shift speed problem, proceed with the following steps.

CAUTION:

The following procedures require accurate machining. If you do not do machining, contact a machine shop in your area.

1. Remove the secondary clutch assembly and disassemble the clutch assembly. Refer to the Service Manual (Part Number LIT-12618-01-35) if necessary.
2. Remove the standard center duralon bushing from the sliding sheave. In doing this, the bushing will be destroyed.

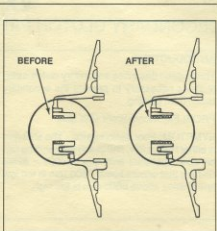


SERVICE PROCEDURES - (Cont'd.)

3. Using a lathe, machine the center bushing bore of the sliding sheave all the way through as represented to the right. Actual machining specifications are provided on the last page of this bulletin. Chamfer both ends of the bore, and lightly sand the bore with 400 grit sandpaper to remove machining imperfections.

CAUTION:

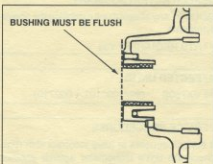
The large sliding bushing (torque cam bushing) remains in the sliding sheave during this machining process. Be careful to avoid damage to this bushing. If this bushing would be damaged during the machining of the center bushing bore, replacement would be necessary.



4. Apply blue Loctite to the outer circumference of the new center bushing. Using a press, install the bushing into the bore of the sliding sheave. Be sure that when you press the bushing in that it is in line with the bore. Press the bushing in until the bushing surface is flush with the aluminum surface on the outside of the sheave.

CAUTION:

Do not let Loctite get on the inner surface of the bushing. If any Loctite should get onto the inner surface, clean it off immediately to avoid damage to the bushing.

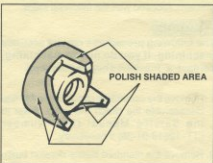


5. Polish the circumference and ramp contact surfaces of the spring seat (torque cam).

NOTE: A machine shop can do this easily. You can also do this using 600 grit wet sandpaper. Remove most of the machining marks. Then, using aluminum polish, buff the surfaces until they look like chrome.

CAUTION:

Remove as little material as possible and as evenly as possible. Uneven or excessive sanding or polishing may cause surface cupping.



SERVICE PROCEDURES - (Cont'd.)

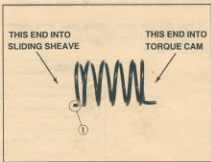
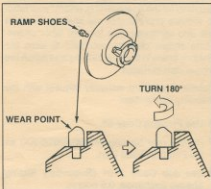
6. Inspect the ramp shoes (plastic buttons) for wear at the point they contact the torque cam ramps. If the ramp shoes are worn, remove them and rotate them 180°, then reinstall them. This will give the polished torque cam ramps a fresh, low-friction mating surface. If the ramp shoes are badly worn, replace them.
7. Reassemble the secondary clutch. Set the preload to the recommended specification for the elevation at which the snowmobile will be used.

CAUTION:

- Never use lubricant on any Duralon bushing, including the new center bushing.
 - Be sure to install the secondary spring into the secondary clutch with the short spring catch ① toward the sliding sheave.
8. Install the secondary clutch assembly and set to the proper V-belt height. Check the clutch offset and center-to-center alignment. If the V-belt has excessive wear or damage, replace it.

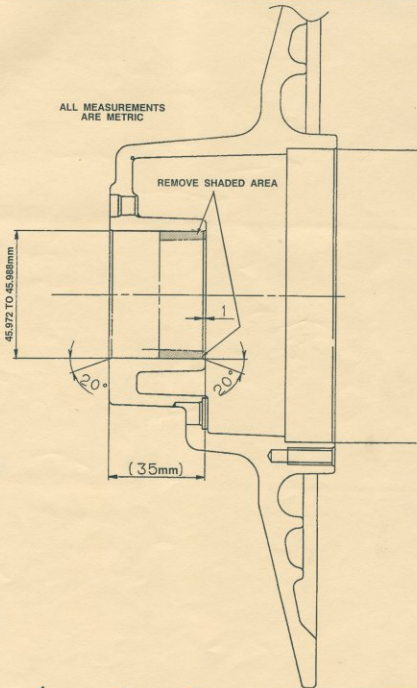
CAUTION:

Scrub the V-belt in warm water with a mild soap before installing it to prevent glazing.



PARTS INFORMATION

Part Number	Description	Remarks	Dealer Cost	Retail
90380-38206-XX	Center Bushing	1 required	\$12.25	\$24.50

ALL MEASUREMENTS
ARE METRIC

ROUTE TO:

 SERVICE PARTS WARRANTY SALES

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