

**REPLACES:** Please discard MC 06-07 dated June 27, 2006**MODEL:** 2004-2005 VULCAN® 2000 (VN2000-A1/L-A2/L)**TITLE:** ENGINE PULLEY WEAR

## FACTORY DIRECTED MODIFICATION

### IMMEDIATE INSPECTION REPAIR ONLY AS REQUIRED

#### Eligibility

#### Eligible Units

Model	Vehicle Identification Number Range
VN2000-A1/L	JKBVNMA1✓4A000032 thru 004668
VN2000-A2/L	JKBVNMA1✓5A006008 thru 006195

Please check VSI (Vehicle Service Inquiry) in K-Dealer for other possible repair campaigns for eligible units.

Kawasaki will repair some units prior to you receiving them. Repair can be verified using VSI or by the Repair Verification. See Repair Verification section for details.

#### Subject

On eligible units, the splines on the engine pulley and/or pulley shaft may be worn due to the type of assembly lubricant used during assembly. This can result in the engine pulley mounting nut not applying enough clamping force to properly hold the pulley in place and creating abnormal wear on the splines of the pulley and/or pulley shaft. The worn splines may cause abnormal noise and the vehicle may not accelerate smoothly.

#### Kawasaki Action

#### Initiate Campaign:

Kawasaki has initiated a FDM campaign to inspect/repair all eligible units. The repair consists of 1) removing the engine pulley to inspect the pulley and shaft splines, replacing the pulley and/or shaft if they are worn, and 2) applying molybdenum grease to the pulley shaft threads and engine pulley mounting nut seating surface during installation and tightening the nut.

#### Notify Registered Owners:

Kawasaki is sending a FDM letter to all registered owners of eligible units. A copy of the letter is printed on the last page of this bulletin.

#### Dealer Action

#### Repair Eligible Units:

Inspect/repair all eligible units including sold units in the field and unsold units in your dealership inventory prior to delivery to the retail purchaser. It is the obligation of authorized Kawasaki retail Dealers to repair eligible units in Dealer's possession prior to retail sale. Failure to comply with this obligation to repair all units eligible for Recall or FDM campaigns by the Dealer constitutes a breach of the Dealer Sales and Service Agreement. Refer to Service Policies bulletin SP 05-01. Refer to the Repair Procedure section of the bulletin for details.

#### NOTE:

- If you fail to submit a Warranty Claim for a new unit that is subsequently sold and registered, the new owner will receive the FDM letter requesting the return of the vehicle to you for repair.*

#### Submit Product Registration:

Submit the product registration to Kawasaki via K-Dealer immediately after retail sale of any eligible unit. Be sure to supply the correct customer name and mailing address. Kawasaki uses the product registration information for customer notification. Also, if you know that the customer has moved, please submit a Customer Update via K-Dealer.

File behind the "MC" tab in your Kawasaki "Service and Warranty" binder

©2006, Kawasaki Motors Corp., U.S.A.

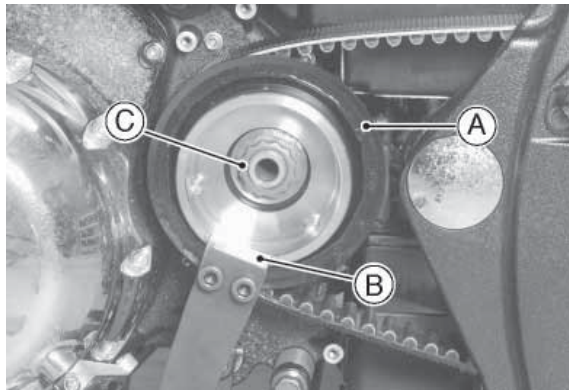
## Repair Procedure

Refer to the appropriate sections of the Service Manual for information and procedures related to parts removal and installation.

MODEL	SERVICE MANUAL PART NUMBER
VN2000A	99924-1320-01 thru -04

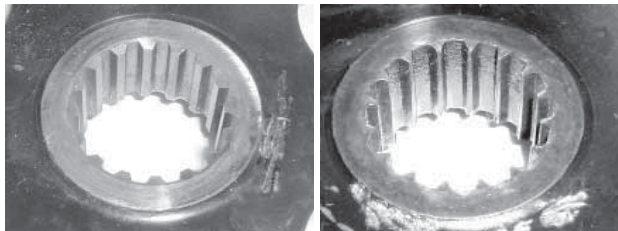
### Inspection of the Engine Pulley/pulley Shaft

- Remove the engine pulley cover.
- Completely loosen the drive belt
- Flatten the bent washer holding the engine pulley mounting nut.
- Hold the engine pulley (A) with the pulley holder (B) and remove the pulley mounting nut (C).



Special tools – Pulley Holder: 57001-1572  
(or Rotor Holder: 57001-1672)  
Grip: 57001-1591

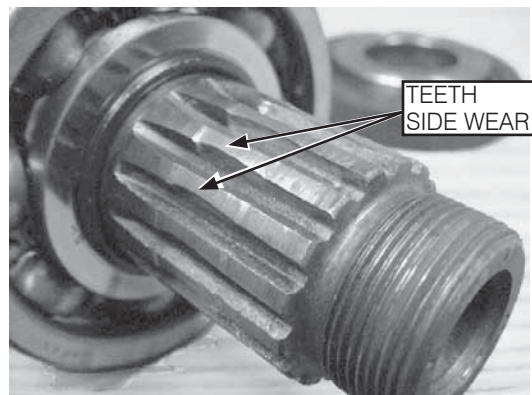
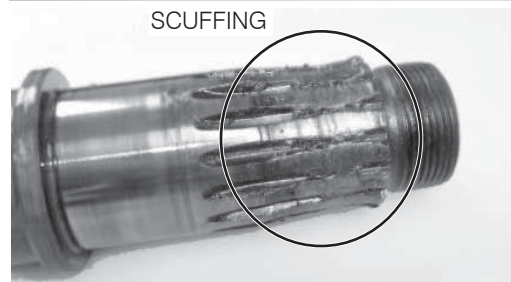
- Remove the engine pulley from the pulley shaft and inspect the splines on the pulley and shaft to determine if they are worn.



GOOD PULLEY

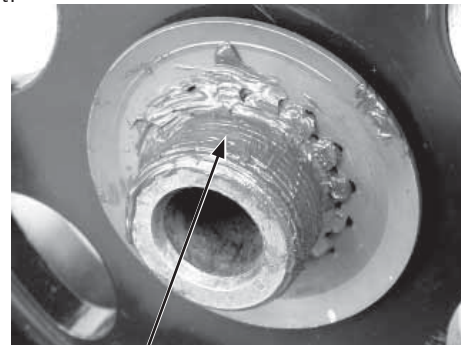
WORN PULLEY

- ★ If the pulley and shaft are not worn, follow the instructions in Installation of Engine Pulley.
- ★ If only the engine pulley splines are worn, replace the pulley following the instructions in Installation of Engine Pulley.
- ★ If the pulley shaft is also worn, replace it following the instructions in Replacement of the Pulley Shaft.

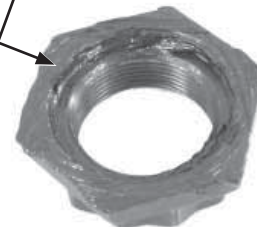


### Installation of the Engine Pulley

- Align the splines inside the engine pulley with those on the pulley shaft and mount the pulley.
- Replace the pulley washer with a new one.
- Apply molybdenum grease to the threads of the pulley shaft and seating surface of the engine pulley mounting nut, then tighten the nut.



APPLY  
MOLYBDENUM  
GREASE





Torque – Engine Pulley Mounting Nut: 130 ft.-lb. (177 N-m, 18 kgf-m)

Special Tools – Pulley Holder: 57001-1572 (or 57001-1672)

Grip: 57001-1591

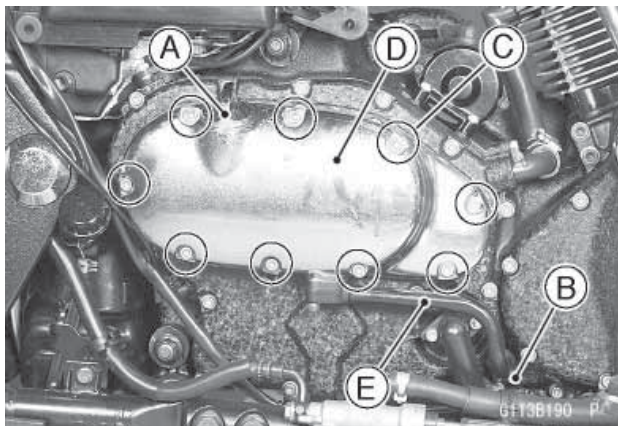
**NOTE:**

o Rotor holder and grip (P/N 57001-1672, 57001-1591) are a part of the Kawasaki Essential Tool Program and are shipping to Dealers the week of June 26, 2006. See bulletin ST 06-01.

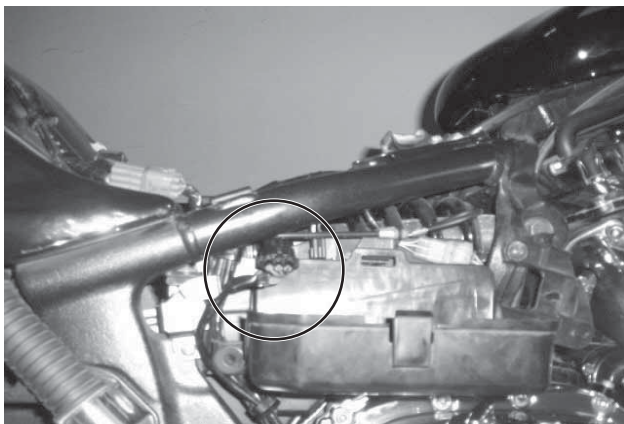
- Bend one side of the washer over the nut.
- Adjust drive belt deflection, and use a new cotter pin after tightening the rear axle nut.
- Install the engine pulley cover.

**Replacement of the Pulley Shaft**

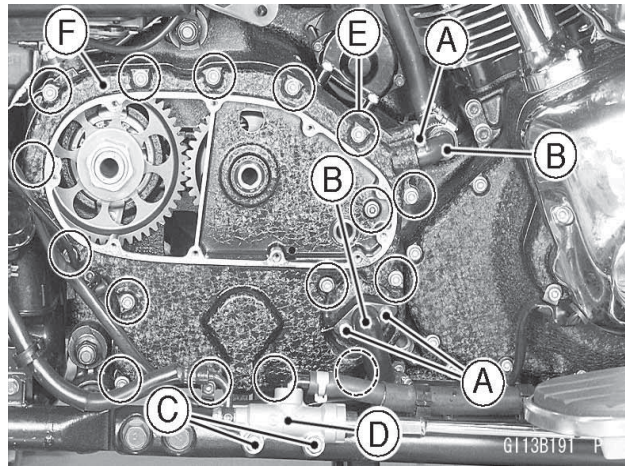
- Drain the engine oil and coolant.
- Remove mufflers.
- Remove:
  - Oil Level Gauge/Oil Filler Cap (A)
  - Oil Pipe Bolt (B)
  - Outer Transmission Cover Bolts (C)
- Remove the outer transmission cover (D) with the oil pipe (E).



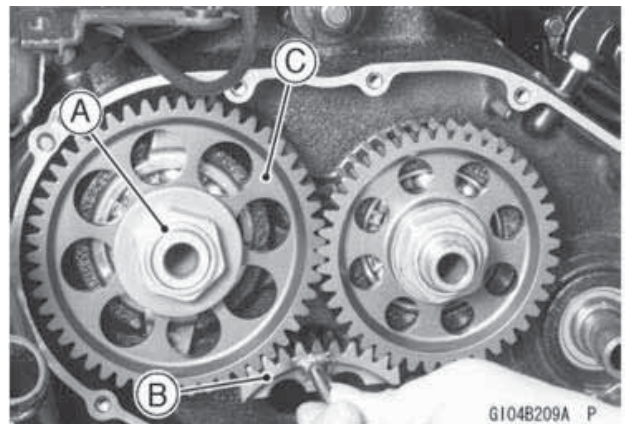
- Disconnect the gear position sensor lead connector.



- Unscrew the bolts (A) and remove the water pipe (B).

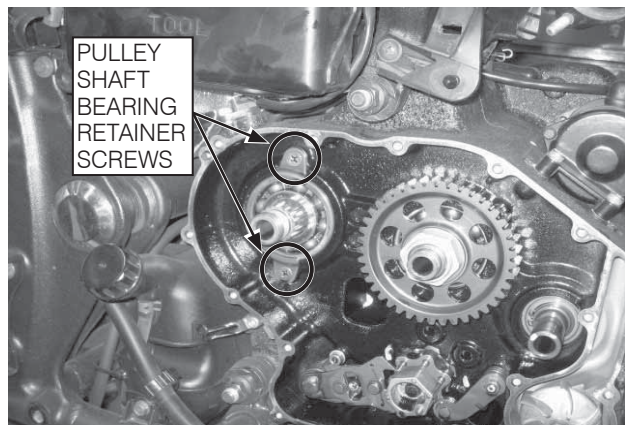


- Remove the bolts (C) and pull down the rear brake master cylinder (D) with the hoses attached.
- Remove the inner transmission bolts (E) and inner transmission cover (F).
- Loosen the transfer gear nut (A) on the pulley shaft.



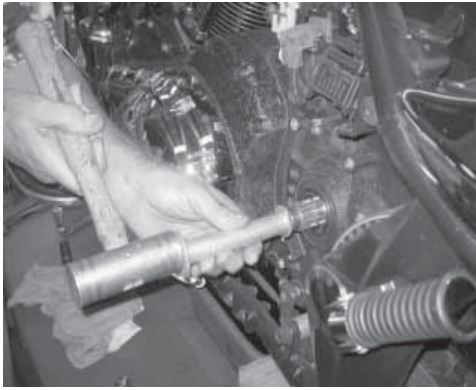
Special Tool – Gear Holder (B): 57001-1574

- Remove the transfer gear nut and transfer gear (C).
- Remove the pulley shaft bearing retainer screws and bearing retainers.

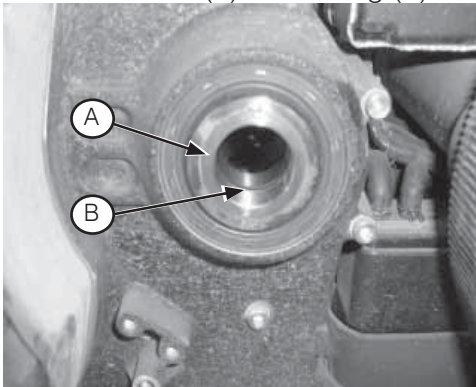




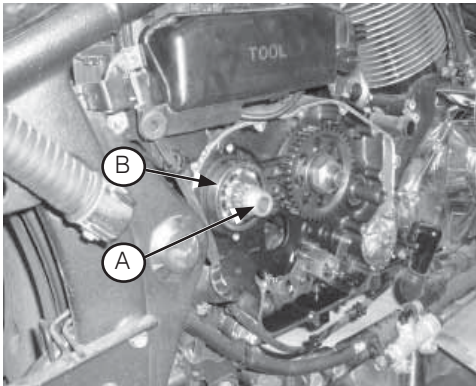
- Drive the pulley shaft out from the pulley side (left side), then remove the pulley shaft with the bearing from the right side.



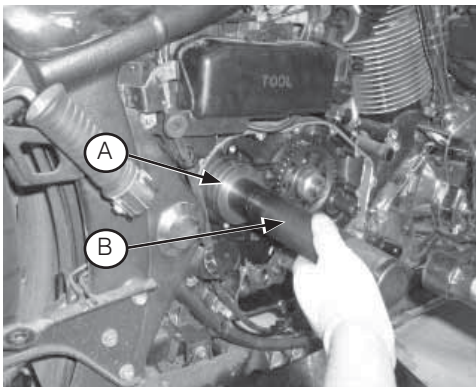
- Remove the collar (A) and O-ring (B).



- Insert the new pulley shaft (A) and new bearing (B) from the right side.



- Drive the bearing into the crankcase until it seats.



Special Tool – Bearing Driver (A): 57001-1684  
Steering Stem Bearing Driver (B) 57001-137

**NOTE:**

o *Bearing Driver (P/N 57001-1684) is a Special Tool required for this FDM. Your Dealership will be reimbursed the cost of the tool. If shaft replacement is necessary, contact the Product Support Hot Line to release a shaft and tool.*

- Install the pulley shaft bearing retainers and screws.

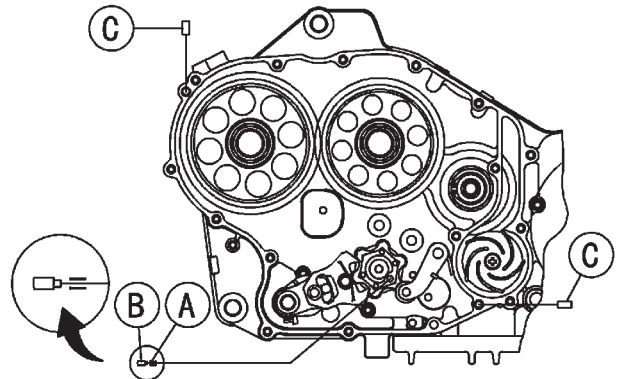
Torque – Bearing retainer screws: 61 in.-lb. (6.9 N-m, 0.7 kgf-m)

- Install the transfer gear and washer.
- Replace the transfer gear nut with a new one. Apply molybdenum disulfide oil to the nut thread and seating surfaces of the washer and nut and tighten to the proper torque.

Torque – Transfer Gear Nut (Pulley Shaft): 58 fl.-lb. (78 N-m, 8.0 kgf-m)

Special Tool – Gear Holder: 57001-1574

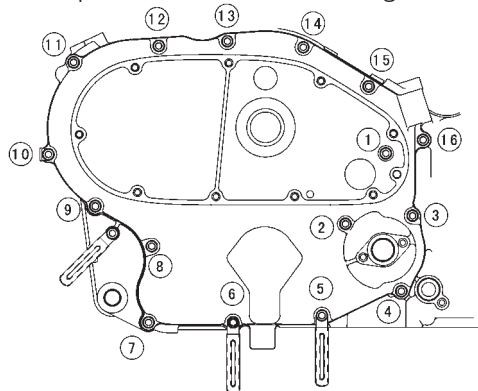
- Be sure that the spring (A) and pin (B), as well as the dowel pins (C), are in position.



- Replace the inner transmission cover gasket with a new one.
- Apply Sealant to the grommet for the gear position switch lead in the inner transmission cover.

Sealant – Kawasaki Bond: 92104-0004 (Three Bond TB1211F)

- Tighten the inner transmission cover bolts in the order shown below to the proper torque, then torque the No. 1 & 2 bolts again.

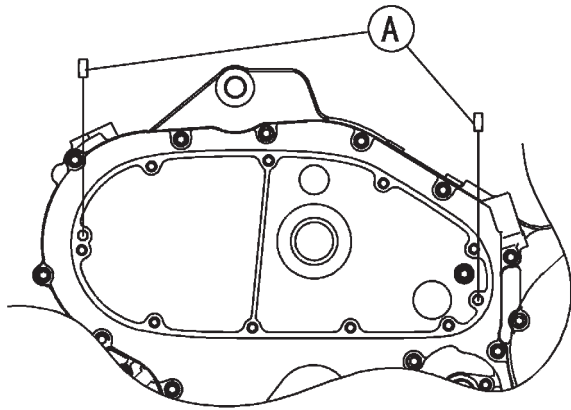


Torque – Inner Transmission Cover Bolts: 104 in.-lb. (12 N-m, 1.2 kgf-m)

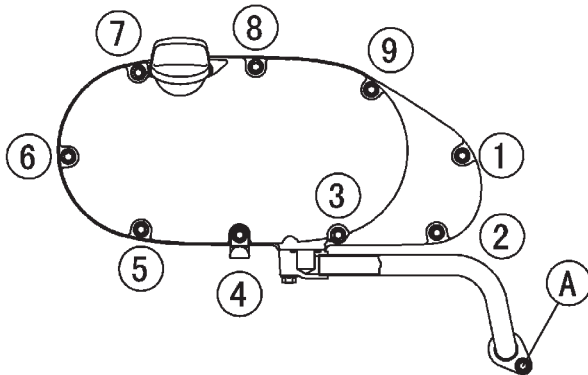
- Apply grease to new O-rings and install the water pipes, tightening the bolts to the proper torque.

Torque – Water Pipe Bolts: 87 in.-lb. (9.8 N-m, 1.0 kgf-m)

- Be sure the dowel pins (A) are in place and position a new outer transmission cover gasket.



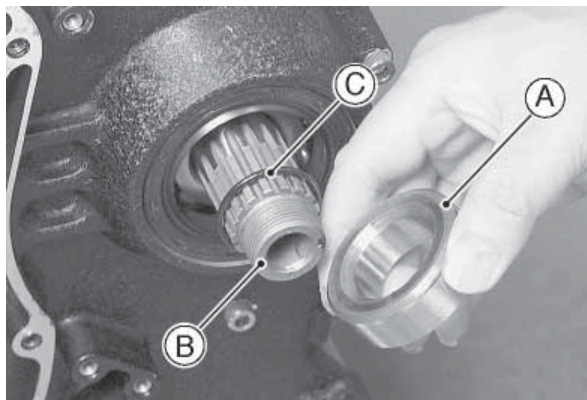
- Apply grease to a new O-ring for the oil pipe in the outer transmission cover, then install the outer transmission cover and tighten the bolts in the order shown, along with the oil pipe bolt, to the proper torque, then torque them again.



Torque – Outer Transmission Cover Bolts 104 in.-lb. (12 N-m, 1.2 kgf-m)

Oil Pipe Bolt: 87 in.-lb. (9.8 N-m, 1.0 kgf-m)

- Connect the gear position sensor lead connector.
- Apply grease to a new pulley shaft O-ring (C) and install the collar (A) and O-ring (C) on the pulley shaft (B).



- Install the engine pulley following the *Installation of Engine Pulley* instructions.
- Install the mufflers.
- Refill the engine oil and coolant.

**NOTE:**

- o Reference service bulletin MC 04-06 for proper Vulcan® 2000 engine oil level checking procedures.

**Parts Information**

The following parts will be required for repair. ONLY ORDER PARTS AS NEEDED FOR FAILED UNITS IN YOUR DEALERSHIP.

**INSPECTION ONLY**

Description	Part Number	Qty
Washer	92200-0017	1
Cotter Pin	550D4035	1

**REPLACE ENGINE PULLEY ONLY**

Description	Part Number	Qty
Washer	92200-0017	1
Cotter Pin	550D4035	1
Pulley – Belt	49079-0014	1

**REPLACE ENGINE PULLEY AND SHAFT**

Description	Part Number	Qty
Washer	92200-0017	1
Cotter Pin	550D4035	1
Pulley – Belt	49079-0014	1
Shaft – Pulley	13107-0108	1
Bearing Driver	57001-1684	1
O-Ring	670D2014	1
O-Ring	92055-1308	1
O-Ring	670B2020	1
Gasket, Trans	11061-0017	1
Gasket, Trans	11061-0018	1
Exhaust Pipe Gasket	11061-0013	2
Bearing, Ball	92045-1190	1
Nut	92210-0138	1
Fitting	<b>92055-0006</b>	1
Fitting	92055-1146	1
O-Ring	670D1508	1

**NEW**

**NOTE:**

- o To order the pulley shaft (P/N 13107-0108) or bearing driver (P/N 57001-1684), you must call the Product Support Hot Line.

## Warranty Information

This is a Factory Directed Modification. Repair is authorized regardless of ownership or warranty status. Repairs **MUST BE PERFORMED IMMEDIATELY ON ALL ELIGIBLE UNITS** in the field and during initial preparation. See the Warranty Policies and Procedures Manual (claim type 3 information) for detailed instructions when submitting the Warranty Claim.

### NOTE:

- o **WORN PULLEY/SHAFT PARTS MUST BE RETURNED – CLAIMS WILL NOT BE PAID IF THE PULLEY AND/OR SHAFT SHOWS NO SIGNS OF DAMAGE.**
- o *The failure rate is expected to be extremely low.*

Return parts to the following address:

Kawasaki Motors Corp., U.S.A.  
 ATTN: Warranty Administration, MC 06-07  
 9950 Jeronimo Rd.  
 Irvine, CA 92618

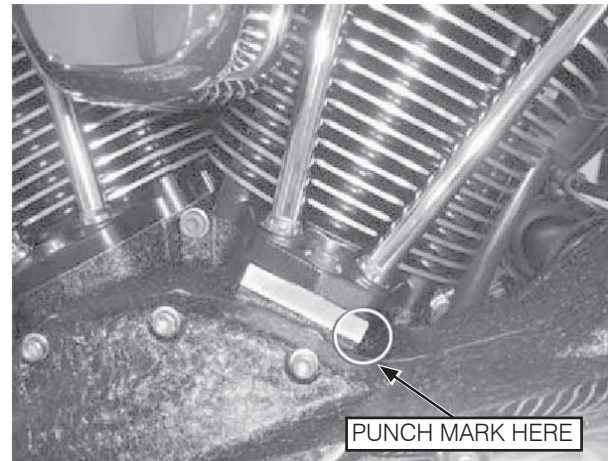
## Warranty Information

Item	Inspection Only	Replace Engine Pulley Only	Replace Engine Pulley & Pulley Shaft
Claim Type	3	3	3
Job Code	21313	21314	21315
Causal Part Number	92200-0017		
Causal Part	WASHER		
Qty	1		
Flat Rate Time	0.7 hr	0.7 hr	3.8 hr
Failure Date	Same as Repair Date		
Additional Parts	92200-0017	92200-0017	92200-0017
	550D4035	550D4035	550D4035
	--	49079-0014	49079-0014
	--	--	13107-0108
	--	--	670D2014
	--	--	92055-1308
	--	--	670B2020
	--	--	11061-0017
	--	--	11061-0018
	--	--	11061-0013 (qty. 2)
	--	--	92045-1190
	--	--	92210-0138
	--	--	<b>92055-0006</b>
	--	--	92055-1146
--	--	670D1508	
			57001-1684

NEW

## Repair Verification

After repair or inspection, make a small punch mark after the engine number as shown.



### NOTE:

- o *Repair verification is an essential part of the repair procedure. Along with the physical repair verification mark, check VSI (Vehicle Service Inquiry) in K-Dealer for other possible repair campaigns for eligible units.*

## **VULCAN® 2000 ENGINE PULLEY WEAR FACTORY DIRECTED MODIFICATION**

Dear Kawasaki Vulcan 2000 Owner:

### **The reason for this notice:**

On eligible units, the splines on the engine pulley and/or pulley shaft may be worn due to the type of assembly lubricant used during assembly. This can result in the engine pulley mounting nut not applying enough clamping force to properly hold the pulley in place and creating abnormal wear on the splines of the pulley and/or pulley shaft. The worn splines may cause abnormal noise and the vehicle may not accelerate smoothly. Our records indicate that you have bought one of these units.

### **What Kawasaki and your dealer will do:**

Kawasaki has initiated a Factory Directed Modification campaign to repair all affected units. The repair will consist of 1) removing the engine pulley to inspect the pulley and shaft splines, replacing the pulley and/or shaft if they are worn, and 2) applying molybdenum grease to the pulley shaft threads and engine pulley mounting nut seating surface during installation and tightening the nut to the proper torque.

This repair will be made by an authorized Kawasaki motorcycle dealer at no charge. Repair time will differ depending on the results of the inspection. The actual repair will take up to 4 hours, but may take longer due to scheduling at the dealership and the time needed to obtain required parts. Please call your Kawasaki motorcycle dealer to schedule an appointment and take this letter with you at that time.

### **If you need help:**

If you have questions or concerns that your dealer is not able to resolve, please contact Kawasaki's Consumer Services Department:

Kawasaki Motors Corp., U.S.A.

ATTN: Consumer Services Department

P.O. Box 25252

Santa Ana, California 92799-5252

(949) 460-5688 between 8:30 a.m. and 4:45 p.m. PT Monday through Friday.

### **If you received this notice in error:**

Our records indicate you are the current owner of the Vulcan 2000 described in this letter. If you no longer have the vehicle described in this letter, or if it has been repaired, please help us to update our records by calling Kawasaki toll free at (866) 802-9381 between 8:30 a.m. and 4:45 p.m. PT Monday through Friday.

We are sorry for any inconvenience, but we have taken this action in your best interest and continued satisfaction with your Kawasaki motorcycle. Please contact your dealer if you have any questions.

Sincerely,

KAWASAKI MOTORS CORP., U.S.A.