

**SAFETY RECALL RVXX0605
OCTOBER 2006****SAFETY RECALL BULLETIN**

ATTENTION: SERVICE MANAGERS
PARTS MANAGERS

SUBJECT: ArvinMeritor Interaxle Driveshaft

SAFETY RECALL INFORMATION:

On certain Volvo model vehicles manufactured with ArvinMeritor RPL20 High-Angle inter-axle driveshafts, an improperly seated or missing snap ring may result in the bearing cup separating from the slip yoke sub-assembly. The universal joint cross could then contact the slip yoke casting and eventually cause the ear work to fracture. This could result in additional damage to the driveline, the vehicle to which it is attached and any additional nearby objects.

VEHICLES AFFECTED:

VNL, VNM, and VT model vehicles manufactured with ArvinMeritor RPL20 High Angle inter-axle driveshafts from June 2006 through August 2006.

There are 3,683 vehicles (3,359 US and 324 Canada) affected by this recall.

NOTE: To verify or determine if a particular vehicle is affected by this recall (or any other recall), you should consult the DCS, Service/Warranty or the eWarranty Vehicle Details screen. By entering the Vehicle Identification Number into the VEHINQ segment or into the VIN search field in eWarranty, the screen will display any outstanding recall.

If a "Dealer Listing" is enclosed it identifies the vehicles that were sold or shipped to your dealership. Be sure to check the VEHINQ or the eWarranty Vehicle Detail screen before performing the recall to verify that the recall is still open.

REPAIR:

The recall repair will consist of inspecting the driveshafts with a Go/No-Go gauge and replacement as needed.

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IMPORTANT NOTE: There are six (6) interaxle driveshafts used. To help the Dealer determine what driveshaft is used, we have identified the vehicles with six unique recall numbers that explicitly identify the driveshaft used. The following table defines each recall number.

Recall Number	Interaxle Driveshaft Part Number(s)
RVXX0605A	20504369
RVXX0605B	20504376
RVXX0605C	20568937
RVXX0605D	20504374
RVXX0605E	20504372
RVXX0605F	20569051

TIME ALLOWANCE:

Inspection including take-charge time: 0.6 hour per vehicle for inspection using gauge tool to confirm whether driveshaft needs to be replaced.

Repair including take-charge time and inspection: 0.9 hours for inspection using the gauge tool and removal and replacement of the driveshaft.

PART ORDERING PROCEDURES:

Parts for this recall should be ordered through Volvo Trucks North America Dealer Communication System. The following information is required to place an order:

1. Your dealer account number, and
2. Interaxle driveshaft part number

NOTE IMPORTANT CHANGE:

Parts should be ordered CLASS THREE (3)! On class three orders, Volvo Trucks North America pays for all shipping costs; therefore, Dealer Claims MUST NOT include shipping costs.

In the event where a dealer does not have the part in stock and has a vehicle that requires the recall, the dealer should order the part CLASS ONE (1) to ensure the quickest possible delivery. Since dealers are responsible for the shipping cost on class one orders, **the dealer should include the expense of shipping in the claim.**

The cost of the part plus 30% dealer mark-up will have to be claimed according to the guidelines identified under the heading "*Claims for Credit*".

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INSPECTION GAUGE ORDERING PROCEDURES:

Inspection Gauges (i.e. GO/No-Go gauges) will be sent to each dealer in advance of notifying the owners. The gauge will be sent to the attention of the Service Manager. In the event you do not have a gauge or have misplaced your gauge, you can order one by contacting Archway Marketing Services at 1-800-535-5560 (select opt. 1 then opt 4). The tool number is PNR26-24-1.

DEALER PARTS INVENTORY:

Dealer Parts inventory is not affected by this recall.

REMOVED PARTS:

All removed (i.e. replaced) driveshafts **must be returned** to the Technical Material Analysis Center in Pulaski, VA.

CLAIMS FOR CREDIT:

Expenses associated with the performance of this recall will be reimbursed based on the guidelines identified in this bulletin, and section 2-41 of the Warranty Manual, Policies and Procedures and chapter 20 of the Parts Operations Manual.

CLAIM CODING INFORMATION:

<u>Type</u>	<u>Authorization Number</u>	<u>Causal Part Number (eWarranty)</u>
P (WINS); or, Recall (eWarranty)	RVXX0605A	20504369
P (WINS); or, Recall (eWarranty)	RVXX0605B	20504376
P (WINS); or, Recall (eWarranty)	RVXX0605C	20568937
P (WINS); or, Recall (eWarranty)	RVXX0605D	20504374
P (WINS); or, Recall (eWarranty)	RVXX0605E	20504372
P (WINS); or, Recall (eWarranty)	RVXX0605F	20569051

Standard repair codes and times:

Inspection including take-charge time: - 45125-0-02 (0.6 hour per vehicle)

Inter-axle driveshaft replacement: 45125-0-05, 0.9 hours per vehicle (includes take charge time)

IMPORTANT NOTE:

- Claims for a recall repair **MUST** be submitted within 2 working days from the repair date.
- Claims that involve replacement of driveshafts will be paid **after the driveshaft is received by TMAC.**
- All removed (i.e. replaced) driveshafts **MUST be returned to TMAC.**

OWNER RECALL RESPONSE CARD:

The "Owner Recall Response Card" is to provide the vehicle owner with a convenient way to notify Volvo Trucks North America of changes affecting the ownership of the subject vehicle. The owner recall response card is not intended for dealer usage other than to assist you in the preparation of the repair orders necessary to perform the applicable recall on the subject vehicle. Please do not use the card as a way to inform Volvo Trucks North America that the vehicle has been inspected or modified. Your DCS claim on line is the appropriate means of informing Volvo Trucks North America that the vehicle has been inspected or modified.

DEALER RECALL RESPONSIBILITY:

Dealers are to perform the recall on all vehicles subject to the recall at no charge to the owner regardless of mileage, age of vehicle, or ownership from this time forward. Whenever a vehicle subject to this recall is taken into or is in your vehicle inventory or dealership for service, we strongly recommend you make every effort to perform the recall correction before the vehicle is sold or released to the owner.

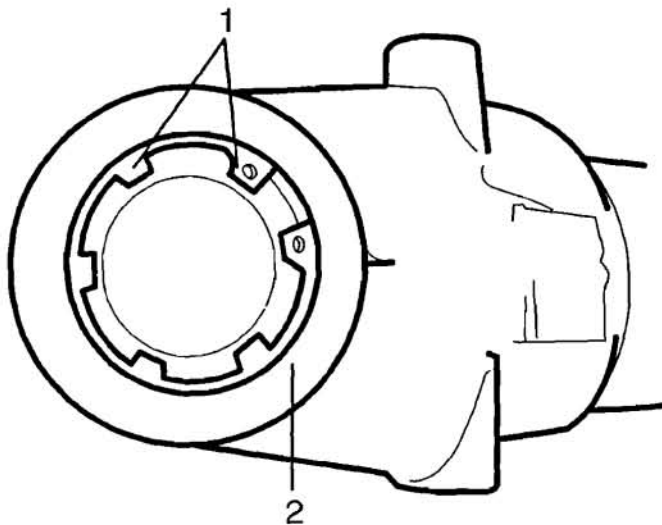
IMPORTANT NOTICE:

Please note that the National Traffic and Motor Vehicle Safety Act requires that the owner's vehicle(s) be corrected at no charge and within a reasonable time after parts are available to you. The law states that failure to repair a vehicle within sixty (60) days after tender for repair shall be a prima facie evidence of unreasonable time. However, circumstances of a particular situation may reduce the sixty-day period. If an owner's vehicle is not repaired within a reasonable time, he or she may be entitled, without charge, to a reasonable equivalent vehicle or refund of the purchase price, less reasonable allowance for depreciation.

Inter-Axle Driveline Inspection

You must read and understand the precautions and guidelines in Service Information, group 40, "General Safety Practices, Transmission" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

1. Park the vehicle on a level surface, block the wheels, and place the transmission in neutral.
2. Support one of the rear driving axle wheels with a safety stand to enable you to rotate the driveline.
3. Inspect the u-joint snap rings on both the weld yoke and slip yoke of the inter-axle driveline.
 - If one or both snap rings are missing from either the weld yoke or the slip yoke, then replace the inter-axle driveline. Refer to Inter-Axle Driveline Replacement section that is included in this instruction.
 - If the snap rings are installed in the weld yoke and the slip yoke ear grooves, then proceed to step 4.
- 4.



1) Snap Ring Teeth

2) Yoke Ear

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Using a screwdriver or pen knife clean all the grease, debris, and paint off the snap ring teeth.

5.



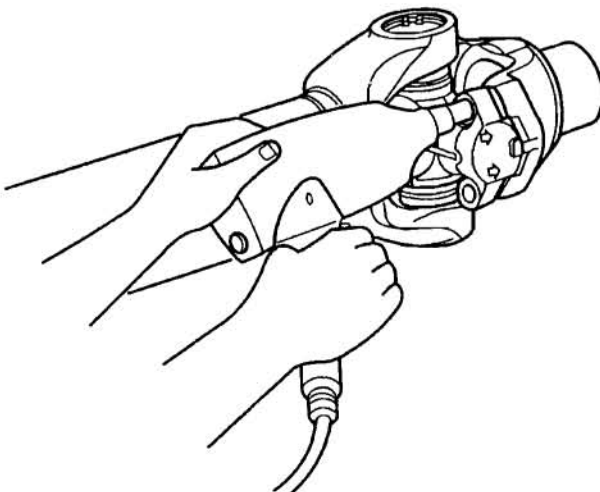
Insert the gage tool into the yoke ear as shown above. The gage tool must fit inside the teeth of the snap ring and flush to the u-joint bearing cap. Repeat this for all snap rings.

- If the gage tool fits all four (4) of the snap rings, no further repair is required.
- If the gage tool fails to fit any snap ring replace the inter-axle driveline. Refer to Inter-Axle Driveline Replacement.

Inter-Axle Driveline Replacement

Removal

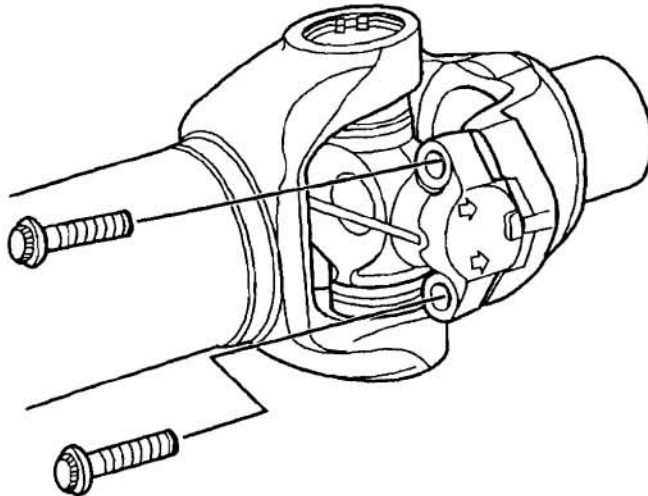
1. Park the vehicle on a level surface, block the wheels and place the transmission in neutral.
2. Raise one of the rear driving axles off the ground and support it with a safety stand.
- 3.



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Support the driveline using a safety stand or a strap, and then loosen the four (4) cap screws.

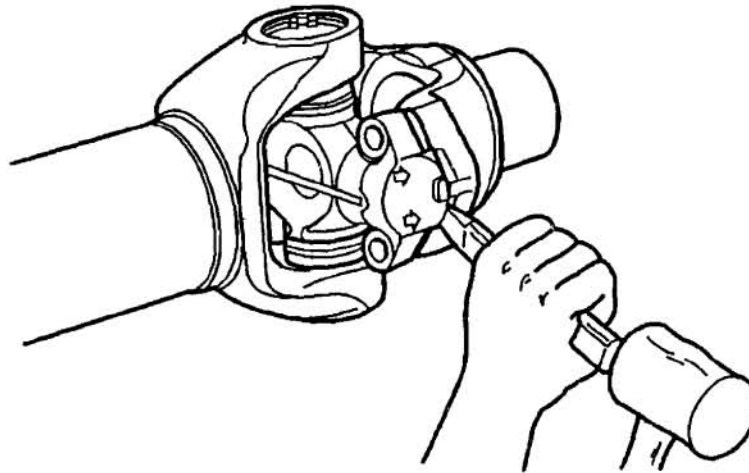
4.



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Remove the four (4) cap screws securing the u-joint to the yoke.

5.



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Separate the wing bushings from the yoke. Note it may be necessary tap the wing bushings from the yoke.

6. Repeat steps 1-4 for the opposite end of the driveline.
7. Lower the driveline to the floor and remove it from under the vehicle.

Installation

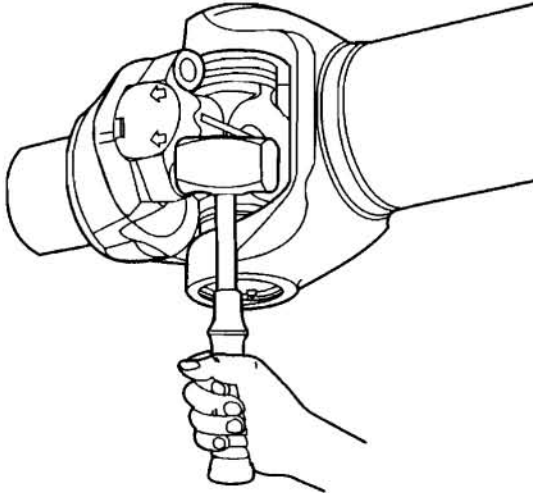
WARNING

If you do not correctly install the universal joint and end yoke, the bushings will not correctly seat in the yoke, which can cause the cap screws that secure the universal joint to fatigue under normal operating conditions. Serious personal injury and damage to components can result. You must position the wing bushing's machined keyway against the machined keyway of the end yoke ears when you install a universal joint. Ensure that the arrows stamped on the wing bushing point TOWARD the end yoke, and the universal joint weld strap faces the driveline and AWAY from the yoke.

CAUTION

A broken weld strap can cause a wing bushing to rotate. When a bushing rotates, it's possible to assemble it into the yoke backward. To ensure correct assembly and prevent damage to components, you must insert both of the wing bushing's machined keyways into the yoke.

1. Lift the new inter-axle driveline into position and support it using a safety stand or strap.
- 2.



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Insert the u-joint wing bushing into the yoke, it may be necessary to tap it with a brass hammer to ensure that it is fully seated.

3. Install the new cap screws and using a torque wrench alternately tighten the cap screws to $169 \pm 14\text{Nm}$ ($125 \pm 10\text{ ft-lb}$).
NOTE: Be sure the wing bushings are fully seated into the yoke before installing the cap screws
4. Repeat step 1-3 for the opposite end of the inter-axle driveline.
5. Remove the safety stands and lower the vehicle.