



# VEHICLE RECALL

**G-03513**  
**November 2003**

**SUBJECT: SAFETY RECALL (U.S., EXPORT)**  
**Steering Columns of RE (Rear Engine) and FE**  
**(Front Engine) Busses Built Between 10/28/1993**  
**and 5/21/2003**

## **DEFECT DESCRIPTION**

A steering shaft yoke pinch bolt, located below the steering column, can catch on the rubber steering boot. If this pinch bolt catches on the steering boot, a sudden resistance in steering movement could occur which may cause a **vehicle crash without warning, possibly** resulting in **property damage, personal injury, or death.**

## **MODELS INVOLVED**

This campaign includes RE and FE busses built 10/28/1993 through 5/21/2003 with tilt or tilt/telescope steering columns (Feature Codes: 05708 or 05710) at the Conway, Arkansas bus plant.

## **OWNER NOTIFICATION**

International Truck and Engine Corporation will notify owners of this campaign on their vehicles. A copy of the owner letter is attached. During the recall process a listing of owner names and addresses will be furnished to the involved dealers to enable dealers to follow up with owners and have the vehicles corrected. You must limit the use of this listing to this campaign because the list may contain information obtained from state motor vehicle registration records and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

## **PARTS INFORMATION**



***Please read carefully to determine which parts may be required:***

All vehicles **(100%)** will require the following part:

<b>Part Number</b>	<b>Part Description</b>	<b>Quantity</b>
8900107R91	Heat Shrink Band Clamp	1

The **Service Procedure** will outline instructions to determine when the following other parts ***may*** be required:

***Only 10% of the total vehicle population is estimated to require a steering boot change. (10% RE & 10% FE)***

***Please only pre-order a minimal amount of steering boots to cover 10% of your vehicles sold.***

**RE (Rear Engine) (10%)** vehicles may require the following part:

<b>Part Number</b>	<b>Part Description</b>	<b>Quantity</b>
2037563C1	Seal, Steering Column – RE	1

**FE (Front Engine) (10%)** vehicles may require the following part:

<b>Part Number</b>	<b>Part Description</b>	<b>Quantity</b>
2200069C1	Seal, Steering Column -- FE	1

## **SERVICE PROCEDURE**



**WARNING:**

***TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR SAFE EYE PROTECTION WHEN YOU PERFORM VEHICLE MAINTENANCE OR SERVICE.***



**WARNING:**

***BLOCK THE WHEELS TO PREVENT THE VEHICLE FROM MOVING.***

## Steering Column Removal

1. Disconnect steering column wiring.



**Figure 1**

2. Remove steering column mounting bracket lower bolts, one on each side of the steering column. (Figure 2)



**Figure 2**

3. Be sure to note which bolt holds the column harness P-Clip in place. (Figure 3).
  - a. *This bolt may be longer than the other steering column mounting bolts. If it is installed in any other hole, it may restrict the steering column's ability to turn freely.*



Figure 3



**WARNING:**

***TO AVOID STEERING COLUMN DAMAGE AND RESTRICTION OF STEERING SHAFT MOVEMENT, REPLACE HARNESS P-CLIP AND BOLT BACK INTO SAME HOLE.***

4. Remove steering column mounting bracket ***upper right-hand*** bolt ***ONLY***.



Figure 4

5. Remove **right-hand** steering column bracket nuts. Remove **right-hand** bracket from column and cowl.



**CAUTION:**

***STEERING COLUMN IS NOW ONLY SUPPORTED BY LEFT-HAND UPPER BOLT.***



**Figure 5**

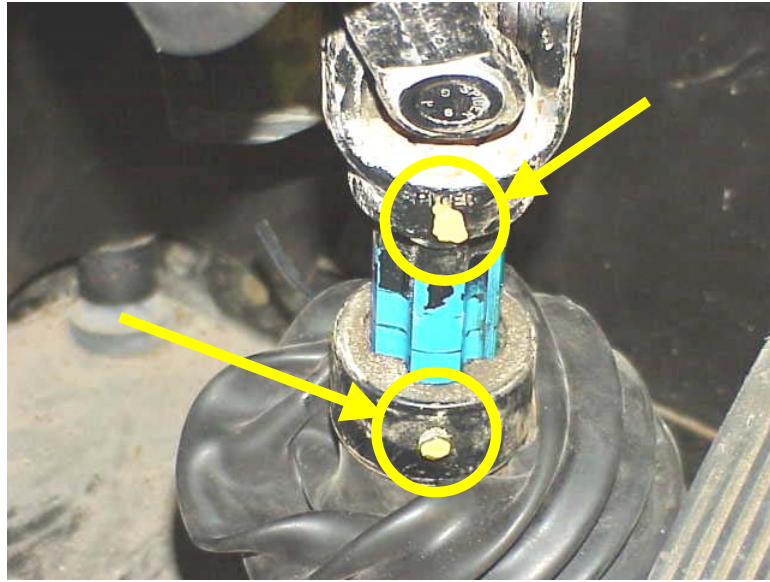
6. Reposition steering column boot downward for easier access to column shaft.



**Figure 6**

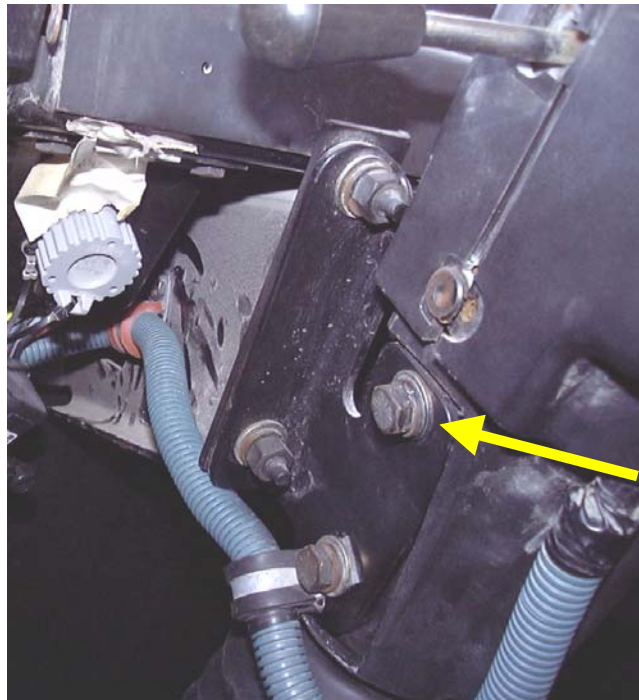


7. Mark both halves of the steering column to keep shaft in place during reinstallation.



**Figure 7**

8. Remove steering column mounting bracket ***upper left-hand*** bolt.

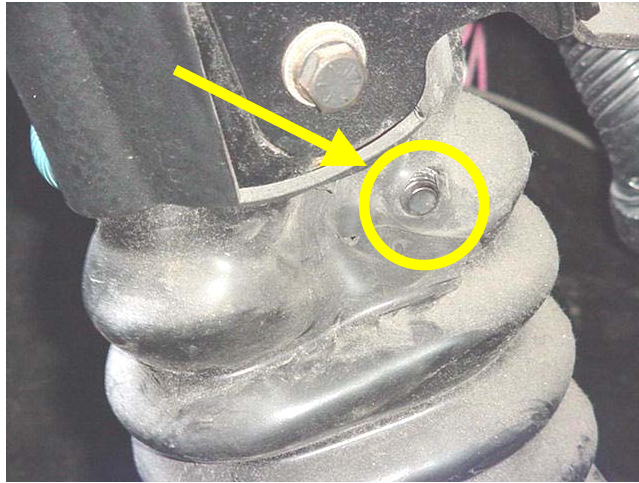


**Figure 8**

9. Remove steering column by sliding shaft from slip yoke . Place on bench.

### **Steering Boot Inspection (Removal/Replacement)**

10. Inspect steering boot for holes.
  - a. See Figure 9 and 10 for representations and possible locations of a hole.



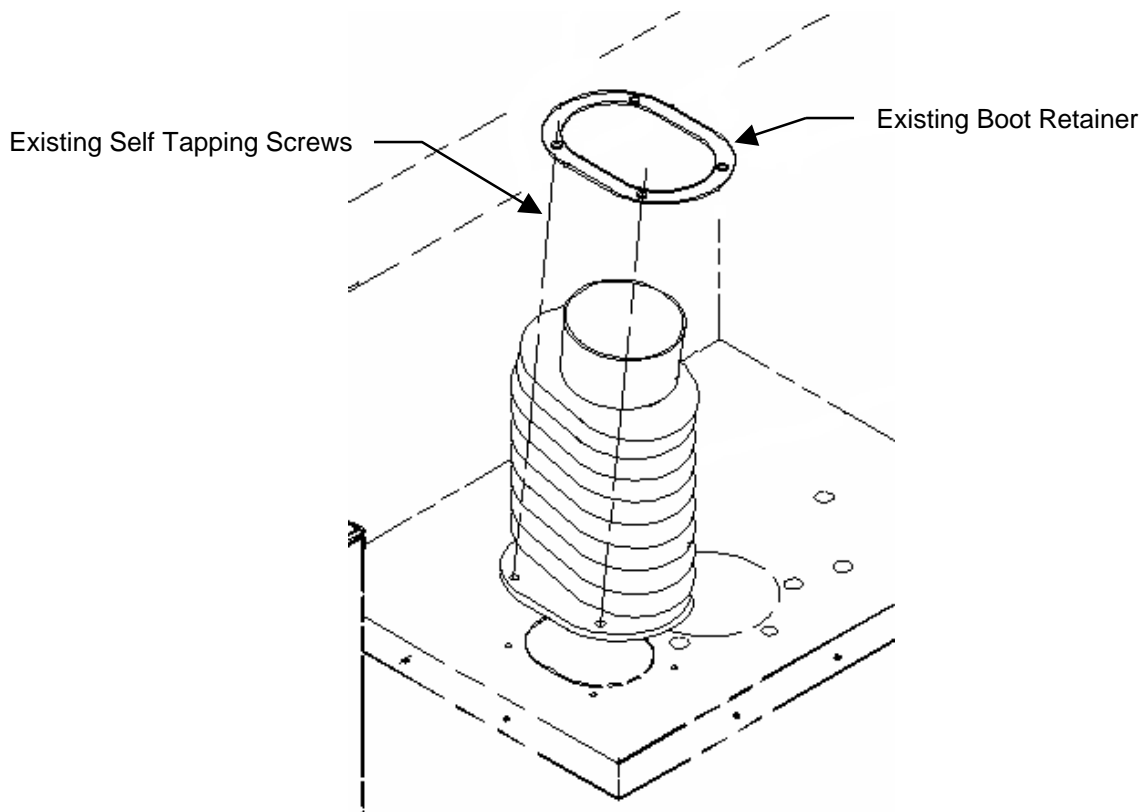
**Figure 9**



**Figure 10**

11. *If a hole is found, continue on to step 12. If no hole is found, skip to step 14.*
12. Remove steering boot from floor.

13. Install new steering boot to floor.
  - a. FE Busses have an oval shaped boot while RE Busses have a round shaped boot. Both are installed in a similar manner.



**Figure 11 (FE Bus Shown)**

#### **Heat Shrink Band Clamp Installation**

14. Remove heat shrink band clamp from cardboard carrier.
15. Slide clamp over U-joint yoke.
16. Position clamp **centered** on the pinch bolt threads.



#### **WARNING:**

***TO AVOID BURNS AND HAND INJURIES, WEAR HEAT RESISTANT GLOVES TO HELP HOLD THE SHRINK BAND IN PLACE DURING CONTRACTION.***



17. Using a heat gun, apply heat to band clamp until it contracts into place. See Figure 12, 13 & 14.



**Figure 12**



**Figure 13**



**Figure 14**

## Steering Column Installation

18. Install steering column assembly into lower column slip yoke. Be sure to align paint marks.

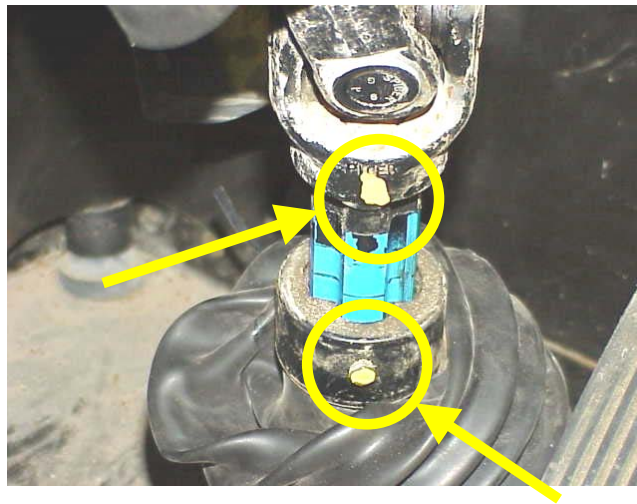


Figure 15

19. Install steering column mounting bracket ***upper left-hand*** bolt.

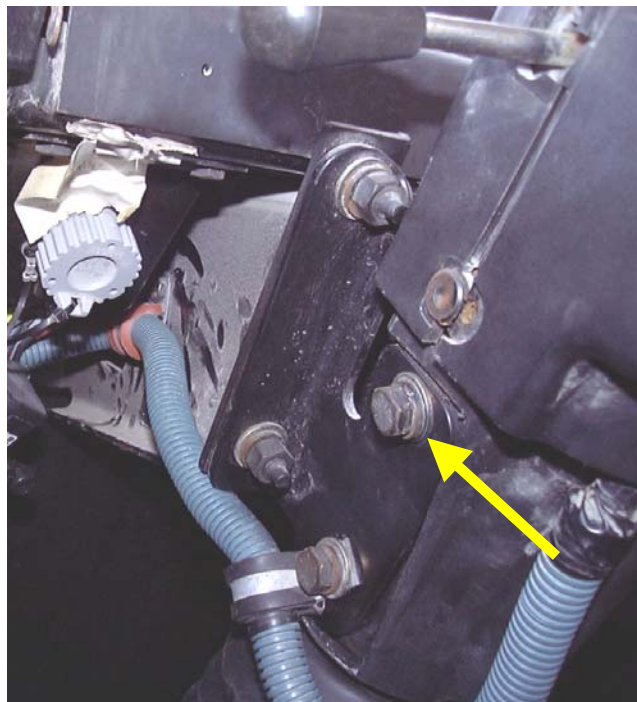
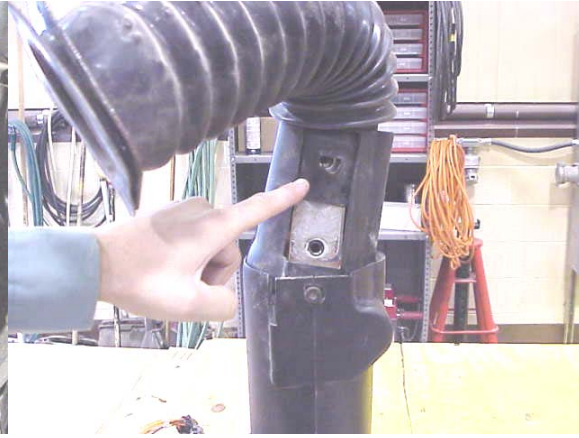


Figure 16

20. Position steering boot as shown.
- a. **Line up holes** in boot with lower steering column mounting bracket holes. Rubber boot should be positioned **under** lower column plastic cover.



**Figure 17**



**Figure 18**

21. Install remaining steering column fasteners. Torque all bolts to **17-23 LbF-Ft (23-31 Nm)**.



**WARNING:**

***TO AVOID STEERING COLUMN DAMAGE AND RESTRICTION OF STEERING SHAFT MOVEMENT, INSTALL HARNESS P-CLIP AND BOLT BACK INTO SAME HOLE.***

22. Re-connect steering column electrical harness.
23. Start vehicle. Spin steering wheel to ensure there is no drag on shaft due to the P-Clip bolt being in the wrong hole.
- a. If resistance is felt, find and place longest bolt in hole where harness P-clip is located.
- b. If **no** resistance is felt, the Service Procedure is complete.

**END OF SERVICE PROCEDURE**

## **LABOR INFORMATION**

<b><u>Operation No.</u></b>	<b><u>Description</u></b>	<b><u>Time</u></b>
A40-03513-1	<i>Installation of Band Clamp ONLY</i>	0.9 hr
A40-03513-2	<i>Installation of Band Clamp &amp; Steering Boot ONLY</i>	1.0 hr

If the steering boot ***is not*** damaged, then only the shrink band clamp needs to be installed. For this, use only operation A40-03513-**1**

If the steering boot ***is*** damaged and needs to be replaced, in addition to the shrink band clamp, use only operation A40-03513-**2**.

## **CAMPAIGN IDENTIFICATION LABEL**

*Each vehicle corrected in accordance with this campaign **must be** marked with a CTS-1075 Campaign Identification Label.*

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.

<b>DO NOT REMOVE</b>
<b>INTERNATIONAL</b>
Campaign No.
VIN
Eng.#
<b>COMPLETED</b>
Service Location Code #
<b>DO NOT REMOVE</b>

## **ADMINISTRATIVE/DEALER RESPONSIBILITIES (U.S. & POSSESSIONS)**

Proceed immediately to make necessary correction to units in inventory. **All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery.** If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified **IMMEDIATELY** from your dealer location.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately **repaired** within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within **60 days** after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to

**replacement** with an identical or reasonable equivalent vehicle at no charge, or to a **refund** of the purchase price less a reasonable allowance for depreciation.

However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

To avoid having to replace an owner vehicle or refund the purchase price, every effort must be made to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible.

## **POSSIBLE CUSTOMER REIMBURSEMENT**

There may be an occasion when a customer was charged for repairs related to this recall prior to the recall being released. The customer letter contains a statement for the customer to contact the Dealer if they believe they are entitled to reimbursement costs. The Dealer should follow the Customer Reimbursement guidelines in Warranty Policy Letter 03-001G. The Warranty Procedures and Administrative Policies manual (CTS1100) is in the process of being updated to include the information in Policy Letter 03-001G.

## **WARRANTY CLAIMS**

Refer to Dealer Warranty Manual for procedures to conduct Recall Campaigns.

It is important that the Recall Coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7-1. Special attention should be given to Items 39 through 44:

GROUP	NOUN	C	WARR.	TP	PAD
<div>GROUP: Enter Recall Number</div>	<div>NOUN: Leave Blank.</div>	<div>C: (CAUSE) Enter either 1, 2, or 3. 1. Inspected – no corrections necessary 2. Inspected and repaired. 3. Defective part from parts stock.</div>	<div>WARRANTY: (Warranty Code) Enter 40.</div>	<div>TYPE PART: Enter P for type part causing failure.</div>	<div>PAD: Enter 100.</div>



### **ADMINISTRATIVE/DISTRIBUTOR RESPONSIBILITY (EXPORT)**

Proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified from your distributor location.

Export locations are to submit warranty claims in the usual manner making reference to this recall number.

We ask for your full cooperation and follow-up to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

## **INTERNATIONAL TRUCK AND ENGINE CORPORATION**