

G-05501-R2
May 2005

SUBJECT: SAFETY RECALL (U.S., EXPORT)
FRONT DRIVE SHAFT on 4800 4x4's with FABCO
TC-200 TRANSFER CASES built 6/30/1999 thru
5/8/2002

This Recall is the final remedy and supersedes Safety Recall G-03516

REVISION DESCRIPTION

THIS IS AN ISIS ONLY NOTIFICATION. There will be NO paper mailing for this revision.



THERE MAY BE A BURR ON THE DRIVE SHAFT'S FLANGE THAT CAN PREVENT THEM FROM PROPERLY MATING TO THEIR COMPANION FLANGES.

PLEASE REVIEW THE ADDITION TO THE SERVICE PROCEDURE FOR INSTRUCTIONS.

SERVICE PROCEDURE

- Addition of ***NEW SHAFT DATE CODE INSPECTION.***

DEFECT DESCRIPTION

An excessive front driveshaft angle may cause accelerated wear and failure of the driveshaft and related components. The front driveshaft can possibly become separated from the vehicle without warning and get into the path of other vehicles on the highway, possibly resulting in property damage, personal injury, or death.

MODELS INVOLVED

This Safety Recall involves 4800 4x4 models with a Fabco TC-200 transfer case (feature code 13TJZ ONLY) built 6/30/1999 through 5/8/2002.

OWNER NOTIFICATION

International Truck and Engine Corporation will notify owners of these vehicles about this campaign. 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

The part required for this recall is:

Part Number	Part Description	Quantity
8900110R91	Recall Service Kit	1
8900145R91	Recall Service Kit – Nuts	1

8900110R91 contains the following parts:

Part Number	Part Description	Quantity
1697666C1	Bolt, M12 x 45mm	8
1694397C1	Seal, T-Case, Fwd Output	1
1663097C1	Nut, Lock, T-Case, Fwd Output	1
ETN0119427	Seal, Frt Axle Pinion	1
ETN0210133	Nut, Lock, Frt Axle Pinion	1
8000846R91	Flange, T-150 (Front Axle)	1
8000847R91	Flange, T-150 (T-Case)	1
8000848R91	Propshaft, Double Cardan	1

8900145R91 contains the following parts:

Part Number	Part Description	Quantity
905263R1	NUT,HEX LOCK, M12 PREVAILING TORQUE HEX NUT	8

Discard all REMOVED parts locally EXCEPT YOKE WASHERS. Undamaged YOKE WASHERS are REUSED in the Service Procedure.

SERVICE PROCEDURE begins on next page.

SERVICE PROCEDURE



WARNING:

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



WARNING:

TO PREVENT UNEXPECTED MOVEMENT OF THE VEHICLE AND POSSIBLE SERIOUS PERSONAL INJURY OR DEATH, BLOCK THE WHEELS TO PREVENT THE VEHICLE FROM MOVING IN BOTH DIRECTIONS.

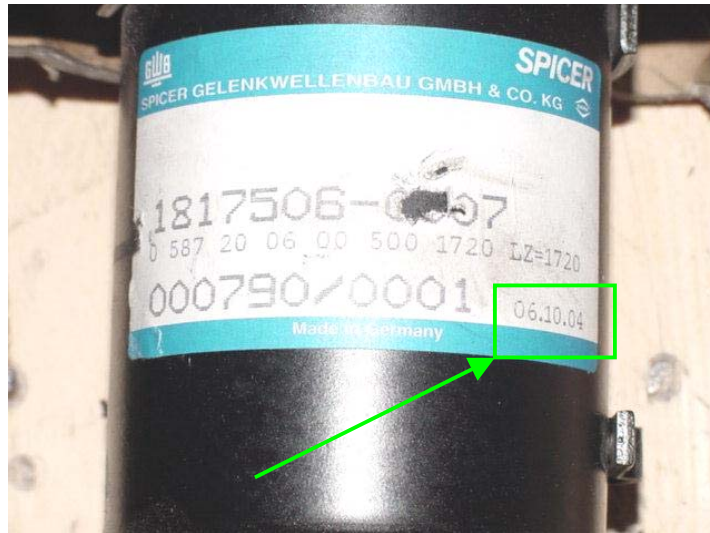
FRONT DRIVESHAFT INSPECTION

DO NOT perform the ***FRONT DRIVESHAFT REPLACEMENT*** if a vehicle was modified in ANY way from factory original. Examples of modification can be as follows:

- Transfer Case re-positioned by Truck Equipment Manufacturer (TEM) due to specialized truck body installation.
- Center bearing installed. The suspect vehicles were originally built with one (1) front drive shaft. If there are two (2) FRONT drive shafts, ***DO NOT*** perform the ***FRONT DRIVESHAFT REPLACEMENT***.

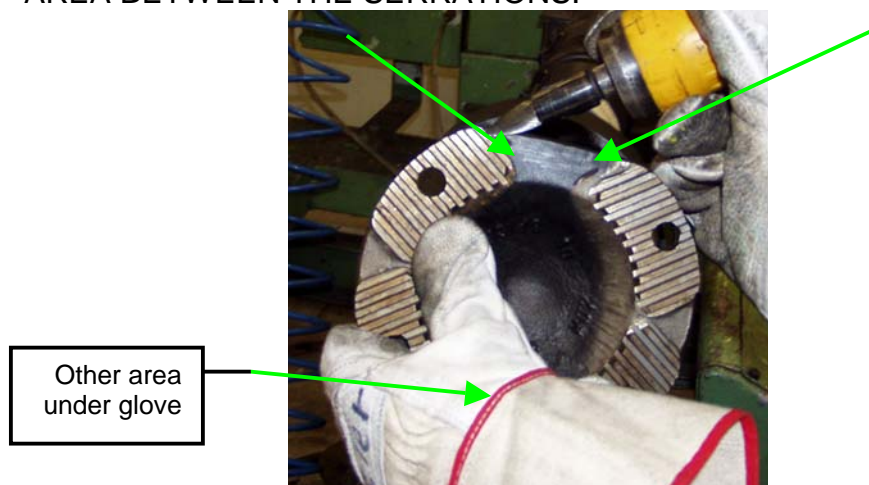
NEW SHAFT DATE CODE INSPECTION

- Locate label and date code on new drive shaft.



Date Code Location

- Date code format is as follows: DAY.MONTH.YEAR. The example above corresponds to October, 6th, 2005.
- If date code is between **01.06.04** and **11.10.04** (*June 1st, 2004 thru October 11th 2004*), perform the following inspection on the shaft's companion flanges.
- If the date code is after 11.10.04, continue on to **FRONT DRIVESHAFT REPLACEMENT**.
- Inspect the serrations in BOTH flanges for excess material in the FLAT AREA BETWEEN THE SERRATIONS.



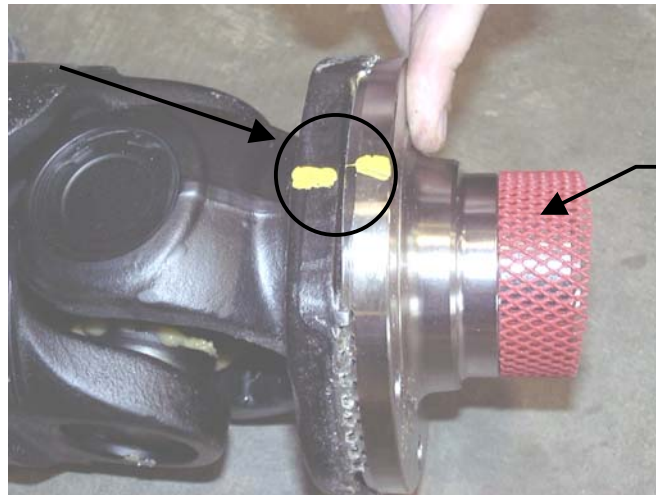
Flange Serrations

- If a burr, or excess material is found, use a die grinder to remove it.
 - **DO NOT REMOVE SERRATION MATERIAL.**
 - Use the mating companion flange (transfer case and front axle) as the gauge to check that there is full engagement of the serration or if interference continues to be present.
 - Refer to Step 1 below. Dry fit should indicate full engagement of flange serrations.
- If no burr or excess material is found, ensure dry fit during Step 1 indicates full engagement of flange serrations. Continue to **FRONT DRIVESHAFT REPLACEMENT.**

FRONT DRIVESHAFT REPLACEMENT begins on next page.

FRONT DRIVESHAFT REPLACEMENT

1. Dry fit and lay out the new shaft and flanges to determine which side belongs on the axle side and which belongs on the transfer case side. Mark flange and shaft for ease in installation and proper alignment.



Front Axle Flange has
SMALL Diameter Splines

Transfer Case Flange
has **LARGE** Diameter
Splines

Figure 1 – Front Axle Side – Small Spline

2. Remove original FRONT driveshaft.
3. Remove front axle yoke and shaft seal. Save the washers, they will be re-used during flange installation.



Figure 2

4. Remove transfer case yoke and shaft seal. You will need to engage the transfer case to prevent the front output shaft from rotating.



Figure 3

5. Install new front axle input shaft seal.



Figure 4

6. Install new front axle flange, washer and nut. Torque nut to **420-450 LbF-Ft (570-610 Nm)**.

7. Install new transfer case output shaft seal.



Figure 5

8. Install new transfer case flange, washer and nut. Torque nut to **460-500 LbF-Ft (625-678 Nm)**.

NOTE: *You will need to use a thin wall socket to properly tighten the nut.*



Figure 6

9. Disengage the transfer case so the output shaft is free to rotate.
10. Install new driveshaft starting with the front axle. **INSTALL SHAFT WITH SLIP JOINT TOWARDS THE REAR OF THE VEHICLE.** Align

mark on flange with mark on shaft. Install and torque bolts to **88-92 LbF-Ft** (120-125 Nm).

11. Rotate transfer case output shaft until the mark on transfer case flange aligns with mark on shaft. Install and torque bolts to **88-92 LbF-Ft** (120-125 Nm).



Figure 7

12. Check and fill, if necessary, front axle and transfer case oil level.

AIR DRYER ROTATIION

13. Some vehicles built with feature code 804EMZ, air dryer relocation, will require the air dryer to be rotated and re-mounted.
14. If the vehicle's air dryer has an output elbow in close proximity (less than 1" [25.4mm]) to the drive shaft (see Figure 8), a rotation is required. Continue to step 16.



Figure 8

15. If the air dryer elbow is not located in close proximity (greater than 1" [25.4mm]) to the driveshaft, then the dryer relocation is not required.
16. Remove the air dryer mounting bolts. Loosen upper air dryer strap bolts.

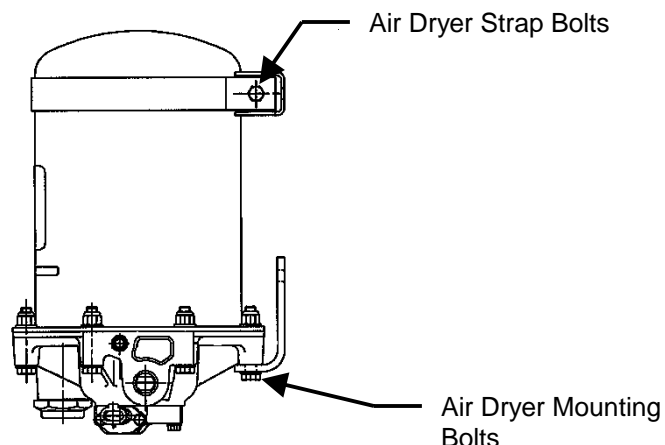
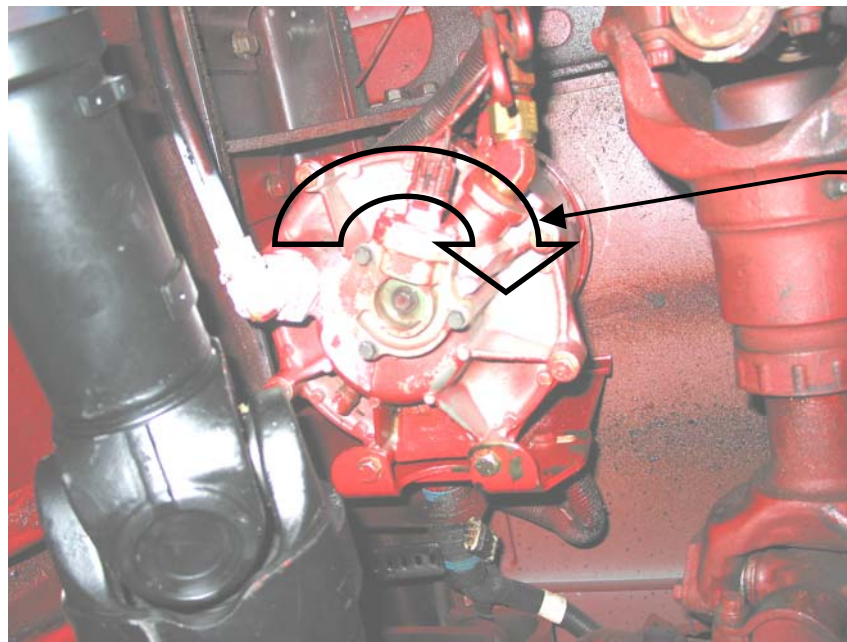


Figure 9

17. Rotate air dryer and re-install mounting bolts; tighten strap bolts.

NOTE: Please only rotate one (1) mounting bolt position.



Rotate Air Dryer
Clockwise to this
position.

Figure 9 – Rotated Air Dryer

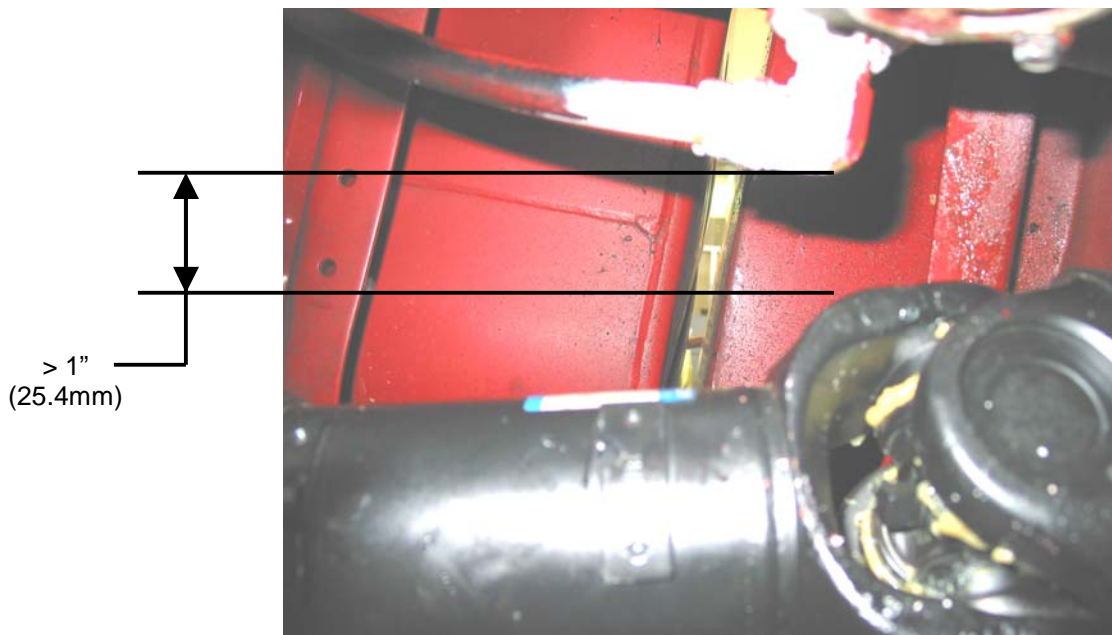


Figure 10 – Rotated Air Dryer

END OF SERVICE PROCEDURE

LABOR INFORMATION

<u>Operation No.</u>	<u>Description</u>	<u>Time</u>
A40-05501-1	<i>Inspect ONLY</i>	0.3 Hr
A40-05501-2	<i>Inspect and R & R Front Drive Shaft</i>	1.5 Hr
A40-05501-3	<i>Add on for Rotate Air Dryer</i>	0.3 hr
A40-05501-4	<i>Remove Burrs from Shaft Flanges</i>	0.2 hr

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.

DO NOT REMOVE
INTERNATIONAL
Campaign No.
VIN
Eng.#
COMPLETED
Service Location Code #
DO NOT REMOVE

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
GROUP Enter number G—						
NOUN Leave blank						
C (CAUSE) Enter either 1, 2, 3. (see below)						
1. Inspected (No repair required).						
2. Inspected and repaired.						
3. Defective part from parts stock.						
WARRANTY (Warranty Code) Enter 40.						
TYPE PART Enter P for type part causing failure.						
PAD Enter 100						

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