FUSO

Recall Information Bulletin

No: C1003610 **Issued:** 8/1/2008
NHTSA No: 08V-224
Transport Canada No: 08-172
Re: AISIN A/T Shift Linkage
Group: 23 **Models:** FE,FG,FH

SUBJECT:
Safety Recall C1003610 - AISIN Automatic Transmission Shift Linkage

MODELS:
FE639, FE640, FE649, FG639 and FH210 equipped with an AISIN automatic transmission.

VEHICLES INVOLVED:
Certain 1999-2004 model year FE639, FE640, FE649, FG639 and FH210 vehicles produced from February 27, 1998 through January 20, 2004.

A list of vehicles your Dealership has sold that require this Recall can be found on the Dealer's "Open Campaigns" list supplied by MFTA via Fusonet. Some individual vehicles described above may not need the Recall. Always check the "VIN Inquiry" tab under "Service" or "Warranty" on Fusonet to verify that the VIN requires this Safety Recall.

Important note: It is a violation of Federal law for a dealer to deliver a new or used motor vehicle covered by this Recall Information Bulletin, under a sale or lease, until the Safety Recall has been completed.

OWNER NOTIFICATION:
Owners of affected vehicles will be notified by mail. A copy of the customer notification letter can be found on Fusonet.

CONDITION:
Mitsubishi Fuso Truck of America, Inc. has decided that a defect which relates to motor vehicle safety exists in the AISIN automatic transmission (A/T) shift linkage. On affected vehicles, normal heat emanating from the exhaust pipe may cause the A/T shift linkage to deform. The effort required to operate the A/T gear selector lever may increase if the linkage binds due to the deformation. In the worst case, the gear selector lever may become inoperative, or the physical selector lever position on the selector lever housing gear indicator may not match the actual gear selection at the transmission. Please note that the electronic gear selector on the instrument panel is unaffected by this failure and will continue to indicate the actual gear selected at the transmission.

MODIFICATION:
Replace the A/T shift control lever with a modified assembly.

PARTS TO BE REPLACED:
The shift linkage assembly and its attaching hardware will be replaced. The replacement parts kit **TM070801** is available through normal parts channels.

RECALL CLAIM SUBMITTAL:
Claim parts and labor via the DIN System using the Recall Claim Entry screen. Enter all requested information, including the Recall Number. The system will apply the labor allowance and parts pricing adjustment shown.

Recall Reimbursement					
Campaign Number	**Models**	**Allowances**		**Labor Description**	**Part Numbers**
C1003610	FE639, FE640, FE649, FE639, FH210	Labor Time	1.9 hours	Disassembly, shift linkage assembly replacement, and adjustment	TM070801
		Parts Pricing	US$138.80		

RECALL PARTS RETENTION:
All parts that have been removed and replaced must be properly identified and retained, as outlined in the Warranty and Service Policy Manual, section 3.8. The Product Support Manager will authorize their scrapping.

REPAIR PROCEDURE:

1. Park the vehicle on a flat, level surface, shut off the engine, apply the parking brake, chock the wheels and disconnect the battery cables. **CAUTION! Do not remove the wheel chocks until all modification work has been completed!**

TM070801 Parts Kit Contents			
Item #	**Description**	**Part Number**	**Quantity**
1	Shift Linkage Assembly	TM070801	1
2	Coated Flange Nut (M6)		1
3	Nut (M8)		2
4	Flange Bolt (M12X30)		2

2. Lubricate the two shift lever nuts (at 3, DIAGRAM 2) with penetrating oil.

3. Remove and discard the shift cable ball joint nut (at 2, DIAGRAM 1) and disconnect the A/T control cable from the shift linkage assembly (1).

DIAGRAM 1

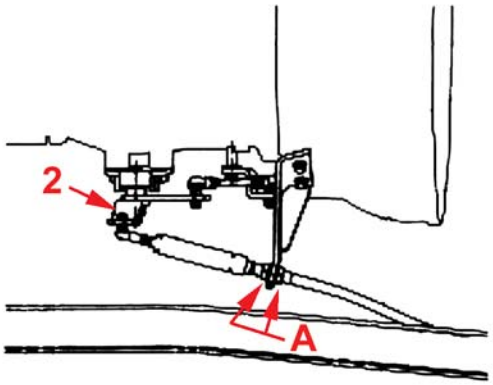


DIAGRAM 2

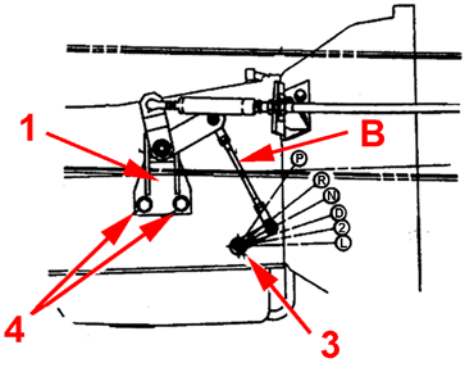


DIAGRAM 3

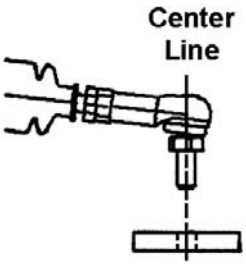
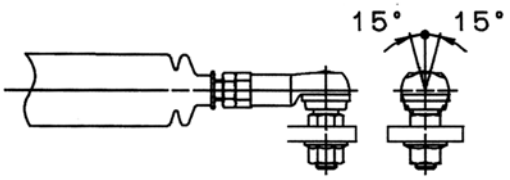


DIAGRAM 4



4. Remove and discard the inner and outer shift lever nuts (at 3, DIAGRAM 2) and the A/T shift linkage assembly flange bolts (at 4, DIAGRAM 2). Then, remove the shift linkage assembly (at 1, DIAGRAM 2). **NOTE: Use extreme caution when removing the shift lever nuts if heavy corrosion is present, as damage to the A/T shift lever shaft could occur.**

5. Affix the new shift linkage assembly (1) to the side of the transmission using two new flange bolts (4). Torque the flange bolts to 28-39.8 ft.lbs. (38-54 N m).

6. Install a new inner shift lever nut (3) and torque to 9.6 ft.lbs (13 Nm).

7. While holding the inner nut in place, install a new outer shift lever nut (3) and torque to 11.1 ft.lbs. (15 Nm).

8. Place both the gear shift range selector in the cab and the shift lever at the transmission in the Neutral “N” position.

9. Ensure that the center of shift cable ball joint is properly aligned with the center of the hole in the new A/T control lever (DIAGRAM 3).

10. If the ball joint and control lever are misaligned, loosen the two shift cable nuts (at A, DIAGRAM 1), and slide the shift cable forward or rearward to align the ball joint and lever hole.

11. Confirm that both levers have remained in the Neutral “N” position, then torque the two shift cable nuts to 43.5-61.2 ft. lbs. (59-83 Nm).

12. If the ball joint of the A/T control cable is twisted beyond its limit (DIAGRAM 4), correct the torsional angle to ±15° of perpendicular.

13. Install a new adhesive-coated flange nut on the A/T control cable (at 2, DIAGRAM 1) and torque to 3-4.4 ft. lbs. (4-6 Nm).

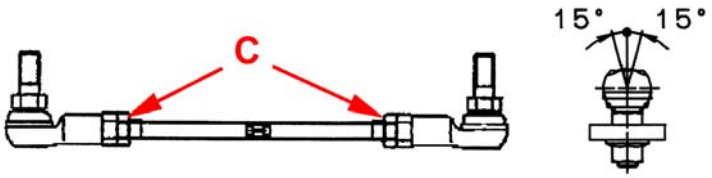
14. Place the gear selector lever in the cab into each gear selection, confirming that the lever moves smoothly from Park “P” through Low “L” with no discrepancy between the gear shift indicator on the floor of the cab, the electronic gear indicator on the instrument panel and the actual gear selected at the transmission. Note: While moving through the gear selection, ensure that there are no abnormalities, such as binding while moving the shifter.

15. Confirm that the gear selector lever remains securely in Park “P” position and that the ignition key can be easily removed from its switch.

16. If any problems during steps 14 or 15 are encountered, the A/T control rod (at B, DIAGRAM 2) must be adjusted.

17. Loosen the A/T control rod ball joint nuts (at C, DIAGRAM 5) and adjust the length by turning the rod.

DIAGRAM 5



18. Resecure the ball joint nuts and torque to 7.4-11.0 ft.lbs. (10-15 Nm).

19. If either A/T control rod ball joint cable is twisted beyond its limit (DIAGRAM 5), correct the torsional angle to within ±15° of perpendicular.

20. After performing this adjustment, repeat steps 14 through 19 until no shifting problems exist.

21. Reconnect the battery cables and remove the wheel chocks.

ADDITIONAL INFORMATION:

In many cases the shift control lever affixed to the shift control rod in the transmission is identical to the lever affixed to the new **TM070801** A/T Control Lever Assembly. In these cases, please leave the existing lever attached to the transmission assembly (It will not be necessary to perform Step 2 of the repair procedure in this case). This will reduce labor time and prevent damage to the A/T shift lever shaft during disassembly.

Certain affected 1999-2002 FE639, FE640, FE649 and FG639 trucks manufactured prior to October 1, 2001 already have the correct Shift Control Lever **ME609488** installed. Shift Control Lever **ME609488** is physically identical to the Shift Control Lever affixed to the new **TM070801** A/T Shift Linkage Assembly (See PHOTO 1).

The Shift Control Levers on affected vehicles can be differentiated by their offset. The offset for the *reusable* lever **ME609488** is 1 1/8" (see PHOTO 2). The offset for lever **ME509253**, that *must be replaced*, is 5/8" (see PHOTO 3).

Remove the Shift Control Lever from the new A/T Control Assembly **TM070801** and discard it (see PHOTO 1). Install the new A/T Shift Linkage Assembly, as instructed in Recall Information Bulletin C1003610. Affix the new A/T Shift Linkage Assembly to the existing Shift Control Lever (see PHOTO 4) and torque the attaching nut to 7.2 to 11 ft.lbs. (9.8-15 Nm).

Perform all necessary adjustments in accordance with this bulletin.

PHOTO 1

PHOTO 2

PHOTO 3

PHOTO 4