



Recall Information Bulletin

No: R3127810 **Issued:** 1/03/2005

Re: Steering Knuckle Arm

Group: 37 **Models:** FE

SUBJECT:

Safety Recall R3127810 - Steering Knuckle Arm

MODELS:

FE434 and FE444

VEHICLES INVOLVED:

Certain 1987 through 1989 model year FE434 and FE444 vehicles produced from October 17, 1986 through March 24, 1989.

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 letter is included with this Bulletin.

CONDITION:

Mitsubishi Fuso Truck of America, Inc. has decided that a defect which relates to motor vehicle safety exists in the steering system knuckle arm. On affected vehicles, the steering system knuckle arm was designed with an insufficient strength margin. Repeated steering operation while stationary, or normal vehicle operation that requires frequent repeated steering operation, could cause the knuckle arm to crack. In the worst case, the vehicle's steering control could become inoperative, causing a crash without warning.

MODIFICATION:

A modified steering knuckle arm with an increased strength margin will be installed. After installation, the toe-in and steering angle will be checked and adjusted if necessary.

PARTS TO BE REPLACED:

The steering knuckle arm will be replaced with a modified component of superior strength margin. The replacement parts are available through normal parts channels in kit form. The contents of the kit (part number **LT-11-LO** [the last digit is an O, not a zero]) are described below.

Knuckle Arm Assembly	1
Castle Nut (24)	1
Split Pin (5x40)	1
Woodruff Key (6x22)	1
Grease Seal	1
End Plug	1
Split Pin (4x45)	1
Castle Nut (14)	1
Spring Washer (14)	1
Split Pin (3x20)	1

RECALL PARTS RETENTION:

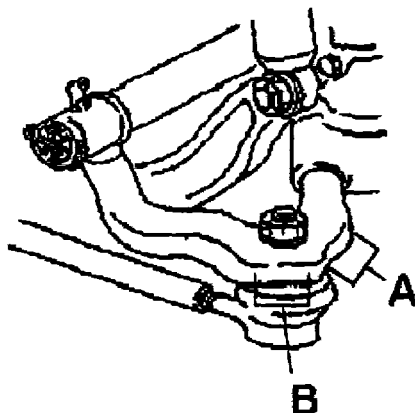
All parts that have been removed and replaced must be properly identified and retained, as outlined in the Warranty and Service Policy Manual, section 3.8. The Field Service Manager will inspect each part and authorize its scrapping.

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 R3127810. The system will apply a 2.2 hour labor allowance and US \$159.12 parts pricing adjustment. A breakdown of the parts pricing adjustment can be found on page 4 of this Bulletin.

R3127810	Labor Time	2.2 hours
	Parts Pricing	US \$159.12

DIAGRAM 1



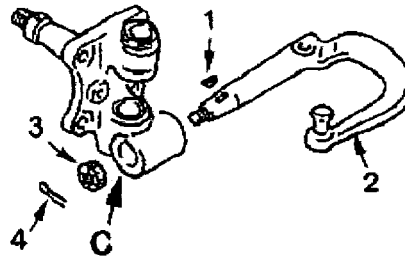
REPAIR PROCEDURE:

1. Park the vehicle on a flat, level surface, shut off the engine, apply the parking brake, and chock the wheels.

NOTE: Please follow all proper Service Manual procedures and cautions when performing this Recall.

2. Lift the front axle and install jack stands of sufficient capacity.
3. Remove the front left wheel lug nuts and remove the wheel and tire assembly.
4. Drag link removal:
 - Remove the split pin from the knuckle arm side of the drag link.
 - Loosen the end plug, then remove the drag link from the knuckle arm.
5. Tie rod end removal:
 - Support the knuckle at **A** (see DIAGRAM 1) using a jack or similar device.
 - Remove the split pin, then remove the castle nut.
 - Separate the threaded head of the tie rod end from the steering knuckle arm, using a non-marring hammer. If the tapered surface of the tie rod end is stuck in the knuckle arm, strike the side of the knuckle arm at **B** with a small hammer in an effort to free up the connection. **CAUTION! Do not damage the knuckle arm or king pin by hammering excessively, and do not move the jack during this operation.**
6. Steering knuckle arm removal:
 - Remove the split pin, then remove the castle nut.
 - Separate the threaded head of the knuckle arm from the knuckle, using a non-marring hammer. If the tapered surface of the of the knuckle arm is stuck in the knuckle, strike the side of the knuckle arm with a small hammer in an effort to free up the connection. **CAUTION! Do not damage the knuckle arm or king pin by hammering excessively.**

DIAGRAM 2



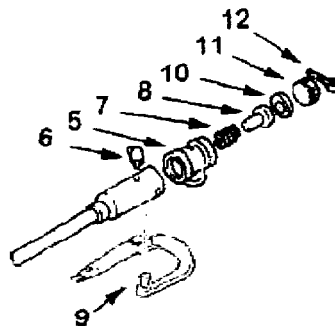
Assembly Sequence

- 1) Woodruff key
- 2) Steering knuckle arm
- 3) Slotted nut
- 4) Split pin

7. Steering knuckle arm installation:

- Polish the inner tapered surface **C** (see DIAGRAM 2) of the knuckle evenly with 120 grit or smoother sand paper until visible sandpaper scoring is visible on the polished surface.
- Clean the tapered surface of the knuckle with an acetone-type cleaner.
- Install a new steering knuckle arm assembly **2** on the knuckle using a new woodruff key **1**.
- Install a new castle nut **3** and tighten to **145-217 ft.lbs.**
- Insert a new split pin **4**.

DIAGRAM 3



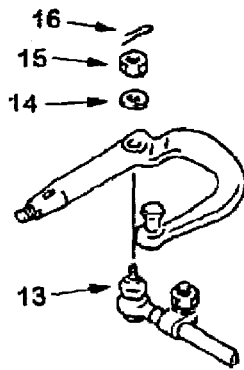
Assembly Sequence

- 5) Dust cover
- 6) Grease fitting
- 7) Spring
- 8) Ball stud seat
- 9) Steering knuckle arm
- 10) Ball stud seat
- 11) End plug
- 12) Split pin

8. Drag link installation:

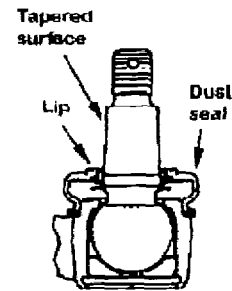
- Install the drag link on the steering knuckle arm **9** using a new dust cover **5**.
- Apply grease to ball stud seats **8** and **10**.
- Install a new end plug **11** and tightening it fully, then back the plug off 1/2 turn.
- Insert a new split pin **12**.
- Lubricate the drag link sufficiently with chassis grease via the grease fitting **6**.

DIAGRAM 4

**Assembly Sequence**

- 13) Tie rod end
- 14) Washer
- 15) Castle nut
- 16) Split pin

DIAGRAM 5



9. Tie rod end installation:

- Install the tie rod end **13** on the steering knuckle arm (see DIAGRAM 4).
- Install a new castle nut **15** and washer **14** and tighten to **51-88 ft.lbs.**
- Insert a new split pin **16**.
- Lubricate the tie rod end dust seal lip using chassis grease (see DIAGRAM 5). NOTE: Keep grease cleaned off of the tapered surface of the tie rod end.

10. Reinstall the wheel and tire assembly and tighten the wheel lug nuts to **325-398 ft.lbs.**11. Check toe-in and steering angle using the procedures in the **1987-1989 FE Service Manual TWSE8636-B Section 26 (TWSE8636-26)** and adjust as needed. If your dealership does not have a 1987-1989 FE Service Manual, a printer-friendly version of the Front Axle section can be found on Fusonet under Service - Publications - Miscellaneous Manuals - TWSE8636-26.

IMPORTANT! If using alignment turntables, raise the front axle and place an alignment turntable under each front wheel. Ensure that the turntable locking pins are in place before lowering the truck onto the turntables. Driving the truck onto and off of the turntables could damage the equipment.

TOE-IN AND STEERING ANGLE MEASUREMENT TABLE:

Toe-in		1mm (0.039")
Maximum steering angle	Inside	40°
	Outside	30°

PARTS PRICING ADJUSTMENT TABLE:

LT-11-LO	Recall parts kit	1	\$158.12
	Chassis grease	as needed	\$1.00 per truck