FUSO

Recall Information Bulletin

No: R3150510 **Issued:** 12/13/2005
Re: 4M50 Idler Gear Bushing
Group: 11 **Models:** FE, FH

SUBJECT:
Safety Recall R3150510 - 4M50 Idler Gear Bushing

MODELS:
FE640, FH210

VEHICLES INVOLVED:
Certain 2004 model year FE640 and FH210 vehicles produced from April 1, 2003 through July 4, 2003.

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 engine idler gear bushing. On affected vehicles, the cylinder head idler gear bushing may have been improperly machined, causing excessive stress on the cylinder head idler gear shaft. Continued operation in this condition could cause the idler gear shaft flange to break and generate abnormal engine noise and/or engine oil leaks. In the worst case, the engine could stall and would not restart.

MODIFICATION:
Measure the inside diameter of the cylinder head idler gear bushing. If the bushing is out of specification, replace the idler gear bushing, idler gear shaft and idler gear assembly. The repair parts are available through normal parts channels in kit form. The contents of the kits (**part numbers LT-32-4 and LT-32-A**) are described below.

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. Choose a Recall Number from the Recall Reimbursement table below that corresponds with the type of repair performed. The system will apply the labor allowance and parts pricing adjustment shown.

Recall Reimbursement					
Campaign Number	**Model**	**Allowances**		**Labor Description**	**Part Numbers**
R3150510	FE640,FH210	Labor Time	1.5 hours	Idler gear bushing inspection	LT-32-4
		Parts Pricing	US$15.60		
R3150520	FE640,FH210	Labor Time	5.0 hours	Idler gear bushing inspection and idler gear assembly replacement	LT-32-4
		Parts Pricing	US$234.55		LT-32-A

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 inspect each part and authorize its 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!**

LT-32-4 Parts Kit Contents		
Item #	**Part Name**	**Qty.**
1	Water outlet case gasket	1
2	O-ring (22.1)	1
3	Rocker Cover Gasket	1
LT-32-A Parts Kit Contents		
Item #	**Part Name**	**Qty.**
4	Fuel leak-off gasket	4
5	Gasket (10)	6
6	Gasket (12)	4
7	Circular Packing	4
8	Idler gear assembly	1
9	Idler gear shaft	1
10	Flange bolt (10x62)	1
11	Sealant	1

2. Allow the engine to cool completely, then drain the coolant into a clean container and save for reuse.

   Refer to the proper Service Manual section for detailed repair procedures:

   TWSE0101-A 2002 FE/FG Service Manual, Section 11A 4M50 (TWSE0101-11A)
   TWME0202-A 2002-2004 FH Service Manual, Section 11A 4M50 (TWME0202-11A)

3. Remove the water outlet case, as shown in **DIAGRAM 1**, and clean off all remaining gasket material from both the outlet case and cylinder head surfaces. Remove and discard the heater elbow o-ring **2**.

4. Remove the rocker cover and discard the rocker cover gasket **3**.

5. Remove the cylinder head idler gear shaft **9**. **IMPORTANT! Keep light constant pressure on the idler gear assembly 8 toward the rear of the engine when removing the idler gear shaft 9 to ensure that the thrust plate does not drop into the engine (see DIAGRAM 2).**

6. Apply motor oil to the surface of the Bushing Gauge (**MH063715**, supplied at N/C by MFTA) in the area shown in DIAGRAM 4 to ensure that the inner surface of the idler gear bushing does not become scored.

7. Attempt to insert the Bushing Gauge into the idler gear bushing as shown in **DIAGRAMS 3 & 4**. **IMPORTANT! Keep light constant pressure on the idler gear assembly 8 toward the rear of the engine when inserting the gauge, to ensure that the thrust plate does not drop into the engine.**

   - If the Bushing Gauge CANNOT be inserted into the idler gear bushing, the inside diameter of the bushing *is within specification and will not be replaced.* Perform steps 8 - 10. DO NOT PROCEED TO STEPS 11 - 20.

   - If the Bushing Gauge CAN be inserted into the bushing, the inner diameter of the bushing is out of specification. *In this case, the idler gear assembly must be replaced.* SKIP STEPS 8 - 10. Proceed to steps 11 - 20.

   Reassembly procedure with reusable idler gear bushing:

8. Reinstall the existing idler gear shaft **9** and flange bolt **10** with the mark on the shaft in the 12:00 position as shown in **PHOTO 1**. Keep light constant pressure on the idler gear assembly **8** toward the rear of the engine to ensure that the thrust plate does not drop into the engine. Torque the flange bolt **10** to **38.0 ft.lbs.**

9. Reinstall the rocker cover assembly with a new rocker cover gasket **3**. Torque the rocker cover attaching bolts to **14.0 ft.lbs.**

10. Reinstall the water outlet case with a new case gasket **1** and o-ring **2**. Torque the water outlet case attaching bolts to **17.4 ft.lbs.** and refill the cooling system with the saved coolant.

DIAGRAM 1

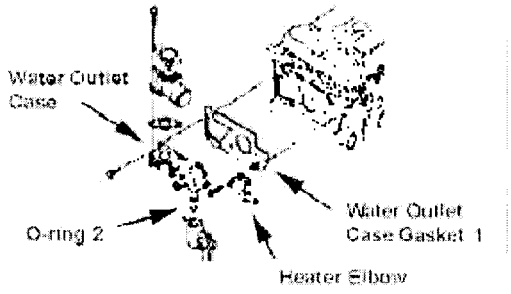


DIAGRAM 2

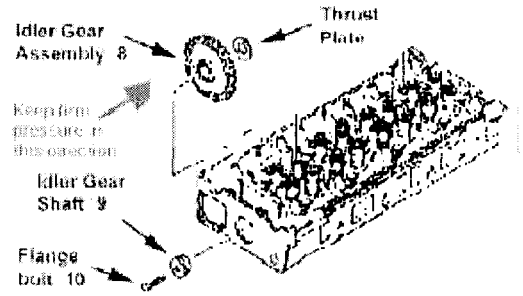


DIAGRAM 3

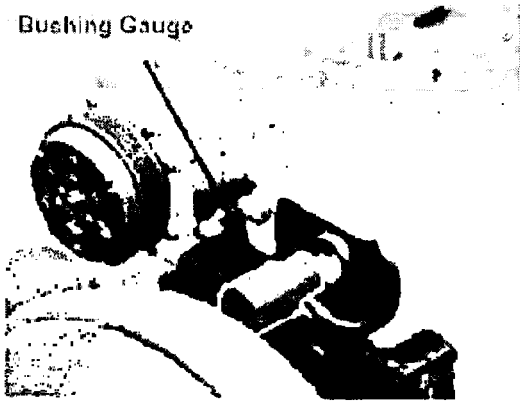
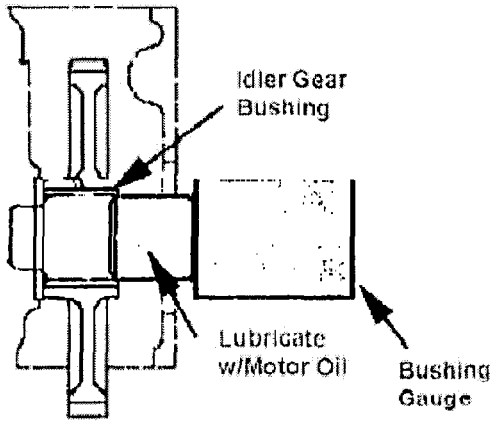


DIAGRAM 4



Reassembly procedure with idler gear bushing replacement (DIAGRAMS 1, 2 & 5 and PHOTOS 1 & 2):

11. Temporarily reinstall the idler gear shaft **9** to ensure that the thrust washer remains in place.

12. Loosen and remove all engine accessory drive belts. Remove the A/C compressor (if equipped).

13. Remove the injection pump to injection nozzle fuel pipes.

14. Remove the fuel leak-off pipe.

15. Remove both the intake and exhaust rocker shaft assemblies. Remove the camshaft frame and both the intake and exhaust camshaft assemblies, and clean off all remaining gasket material from camshaft frame.

PHOTO 1

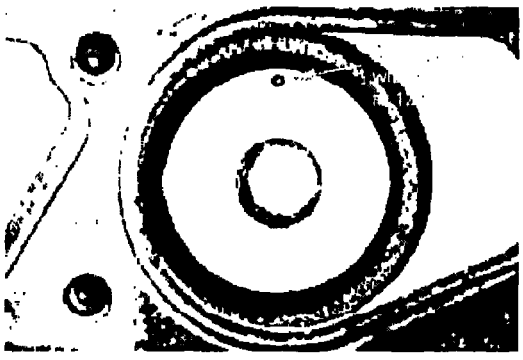
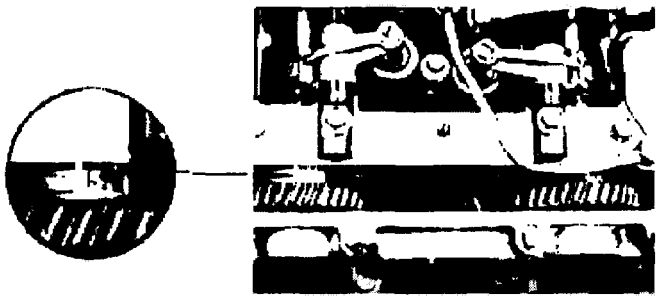


PHOTO 2

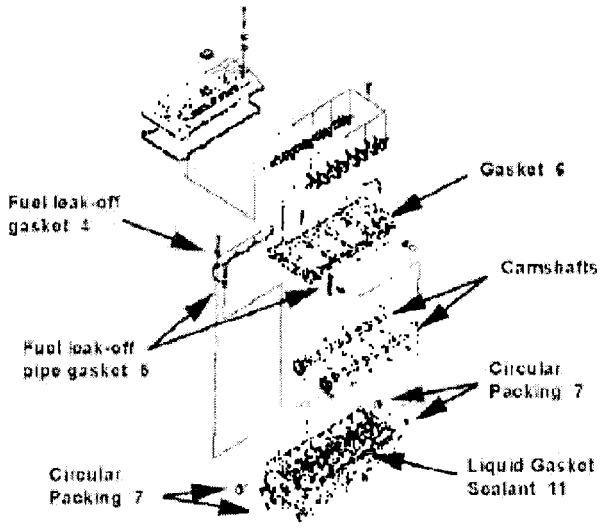


REPAIR PROCEDURE (cont'd):

16. Remove the idler gear shaft flange bolt **10**, shaft **9** and gear assembly **8**.

17. Install a new idler gear assembly **8**, idler gear shaft **9** and flange bolt **10**, ensuring that the thrust plate remains in place on the cylinder head. Torque the bolt **10** to **38.0 ft.lbs.**

DIAGRAM 5



18 Reinstall all removed components in the reverse order of steps 3 - 4 and 11 - 15 above.

19. When reinstalling the camshaft assemblies, place piston # 1 at top dead center on the compression stroke and align the camshafts with the alignment marks on the camshaft gear and the camshaft frame (refer to **PHOTO 2**). **NOTE: Review Service Information Bulletins 00-013 and 00-015 for more information concerning camshaft installation.**

20. Install new gaskets and sealants provided in parts kit **LT-32-A (Items 4,5,6,7 & 11)** and refill the cooling system with the saved coolant.

Refer to the Tightening Torque table below for proper attaching hardware tightening specifications.

Tightening Torque Specifications	
Part Name	**Torque (ft-lbs.)**
Idler gear shaft flange bolt	38.0
Rocker cover attaching bolts (4 bolts)	14.0
Water outlet case attaching bolts (8 bolts)	17.4
Cam frame attaching bolts (8 x 45) (13 bolts) refer to Service Manual for tightening sequence.	20.0
Rocker shaft assembly attaching bolts (8 x 60) (10 bolts) refer to Service Manual for tightening sequence.	20.0
Cam frame attaching bolts (8 x 155) (2 bolts)	17.0
Injector return pipe (4 bolts)	15.0
Cam frame return pipe (10 x 20) (2 bolts)	15.0
Internal fuel line nuts	28.0
External fuel line nuts	28.0