



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 04-062
Date Opened: 09/03/2004 Date Closed: 02/02/2005
Principal Investigator: Sonny Murianka
Subject: Tie Rod tube Failure

Manufacturer: Freightliner LLC, Thomas Built Buses, Inc.
Products: 2001-2004 Thomas MVP Engine Rear (ER) and Engine Front (EF)
Population: 5839

Problem Description: Front tie-rod tubes are cracking and separating from the tie-rods. When this occurs, controllability of the affected wheel is compromised.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	8	23	23
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	0	0

*Description of Other:

Action: This Preliminary Evaluation (PE) is closed. Dana, the equipment supplier, has filed a safety recall. Campaign number 05E-004 has been assigned.

Engineer: Sonny Murianka

Date: 02/02/2005

Div. Chief: Richard Boyd

Date: 02/02/2005

Office Dir.: Kathleen C. DeMeter

Date: 02/02/2005

Summary: This investigation was prompted by complaints from two separate school bus fleets. Both fleets alleged that while maneuvering in a parking area, the tie-rod tube disconnected from one of the tie-rods. Dana, Freightliner and Thomas built buses recently completed extensive testing and determined that a crack may initiate on the internal thread root of the tie rod. This condition is due to inadequate dampening in the chassis system to account for normal brake-induced vibration. These cracks may lead to separation of the tie rod from the assembly.

Approximately 5,839 Dana steer axles equipped with a certain TRW tie rod assembly utilizing a cut thread design are involved: a. 1320 axle applications, Thomas part number 61110702 and 61110705 installed on Thomas buses with 6" brakes and 30" air chambers; b. 1460 axle applications, Thomas bus part number 61110707 and 61110708 installed with 6" brakes and 30" air chambers.

Thomas built bus will replace the existing tie rod assemblies which contain the cut thread design with a new tie rod assembly that utilizes a rolled thread design. A rolled thread provides less stress on the critical area of the tie rod.

A copy of the defect report is attached. This action resolves the issues raised by this investigation. Accordingly, this investigation is closed.

By Fayed 2/9/05