



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

**Investigation:** PE 10-041  
**Date Opened:** 10/20/2010  
**Investigator:** Ric Willard  
**Approver:** Richard Boyd  
**Subject:** Hydraulic Auxiliary Pump Fitting Failure

**Date Closed:** 11/09/2010  
**Reviewer:** Bruce York-B

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** ORION BUS INDUSTRIES LTD., DAIMLER COMMERCIAL BUSES NA, DAIMLER BUSES NORTH AMERICA, INC.  
**Products:** 1995, 1997-2000 MY Orion VI  
**Population:** 217

**Problem Description:** Auxiliary feeder lines for wheelchair lift assemblies may fail at threaded fixture during normal operation. ODI is aware of one resultant fire.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
<b>Complaints:</b>	1	1	1**
<b>Crashes/Fires:</b>	1	1	1**
<b>Injury Incidents:</b>	0	0	0
<b>Fatality Incidents:</b>	0	0	0

\*\* Count indicates duplicate reports received by ODI and manufacturer.

## ACTION / SUMMARY INFORMATION

**Action:** Close investigation due to recall 10V-538

### Summary:

ODI became aware of a fire involving a Washington Metro Area Transit Authority (WMATA) bus. A WMATA contracted vehicle inspection identified the failure of a tapped hydraulic fitting to have caused the fire.

Orion VI buses were built from 1994 to 2002. This investigation is specific to 1995, 1997-2000 production. Daimler Bus informed ODI that 1994 & 1996 model year buses were either prototypes or sold only in Canada; buses built after 2000 had a tee fitting in lieu of the tapped fitting in question.

On October 20, 2010 Daimler Bus informed ODI that an internal meeting was planned to discuss the same concern as the one that prompted this investigation. ODI agreed to delay formally requesting information; an IR letter was to be mailed on November 9, 2010 if needed.

On November 2, 2010 ODI received a 573 Defect Report (Recall 10V-538) that addresses the concerns of this investigation. This investigation will be closed. There is no associated IR letter. A copy of the defect report is attached.

Safety Defect and Noncompliance Report Guide for Vehicles  
**PART 573 Defect and Noncompliance Report**

On October 29, 2010 , Daimler Buses North America Inc. (Daimler Buses) decided that a safety related defect exists in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: October 29, 2010

Furnish the manufacturer's identification code for this recall (if applicable):

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Daimler Buses North America Inc.

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

Joe Labonte

Product Safety and Compliance Officer

Telephone Number: (905) 403-7807 Fax No.: (905)403-8808

Name and Title of Person who prepared this report.

Joe Labonte

Product Safety and Compliance Officer

Signed:



**I. Identify the Vehicle Models Involved in the Recall**

**2. Identify the Vehicles Involved in the Recall, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide:**

**Make(s):** Orion **Model Years Involved:** 1995 - 2000 **Model(s):** VI

**Production Dates: Beginning:** January 1996 **Ending:** December 2000

**Vehicle Type:** Bus **Bodystyle:** VI

**Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:**

Certain model Orion VI buses configured with a tapped fitting feeding the front wheelchair ramp hydraulic system.

**Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.**

100%

**II. Identify the Recall Population**

**3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.**

<b>Model</b>	<b>Year</b>	<b>Number of Vehicles Potentially Involved</b>
<u>VI</u>	<u>1995</u>	<u>1</u>
<u>VI</u>	<u>1997</u>	<u>20</u>
<u>VI</u>	<u>1998</u>	<u>5</u>
<u>VI</u>	<u>1999</u>	<u>5</u>
<u>VI</u>	<u>2000</u>	<u>186</u>

**Total Number Potentially Affected by the Recall:** 217 Buses

**4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance:** 100 %.

**Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:**

Those model Orion VI buses configured with a tapped fitting for the hydraulic wheelchair ramp.

**5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.**

In the engine compartment connected to the hydraulic pump is a fitting with an adapter for the wheelchair ramp operation. The fitting can crack and cause hydraulic fluid to leak into the engine compartment.

**Describe the cause(s) of the defect or noncompliance condition.**

The fitting is tapped and may make for an unreliable connection.

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**Describe the consequence(s) of the defect or noncompliance condition.**

A crack in the fitting that is not repaired at the signs of a small leak can cause hydraulic fluid to leak into the engine compartment and be ignited by the hot turbocharger.

**Identify any warning which can (a) precede or (b) occur.**

A hydraulic fluid leak may be seen at the fitting. The hydraulic fluid level may be below full level.

**If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.**

The fitting is tapped by Daimler Buses North America Inc.

**Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:**

#### **IV. Provide the Chronology in Determining the Defect/Noncompliance**

*If the recall is for a defect, complete item 6, otherwise item 7.*

**6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.**

September 9, 2010 Daimler receives media notice of WMATA action to pull 99 ten year old buses from service

September 9, 2010 Daimler visits incident bus

September 2010 Design review of the wheelchair ramp hydraulic system configurations

September 2010 Review finds no related field reports, accidents, injuries, fatalities, or warranty claims

October, 2010 Review of other similar bus configurations confirms no issues found.

**7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.**

This is not a noncompliance.

## **V. Identify the Remedy**

**8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.**

Bus owners will be instructed on how to remove a hydraulic hose and fittings and add a new 24" hose, tee, straight, and reducer fittings.

**Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.**

A purchased tee fitting will be put in place of a straight fitting having a tapped connection.

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**Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.**  
The Orion VI model product has since been discontinued. In May 2000 an alternate configuration of this connection was introduced in to production initiated on PACE order 1124 and Birmingham order 1137. The alternate configuration was introduced to improve the manufacturing time by purchasing a tee fitting in place of tapping a fitting in production. All subsequent orders had the purchased tee fitting. This revised fitting is identical to the remedy.

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## **VI. Identify the Recall Schedule**

**Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.**

In December 2010 owners will be instructed on how to remove the fittings and a hydraulic hose and to add new tee, straight, and reducer fittings and 24" hose.

## **VII. Furnish Recall Communications**

**9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.**

A copy of a notice will be provided.

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