



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 11-028
Date Opened: 08/29/2011
Investigator: Peter Kivett
Approver: Frank Borris
Subject: Output shaft failure and separation

Date Closed: 11/22/2011
Reviewer: Bruce York-B

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: DAIMLER TRUCKS NORTH AMERICA, FREIGHTLINER LLC
Products: 2011 Cascadia, Columbia, Coronado & Business Class M2
Population: 48,388
Problem Description: Arvin Meritor output shaft failures at the rear axle due to improper heat treatment

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	0	0
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	2	96	96

*Description of Other: EWR Field Reports and Warranty claims

ACTION / SUMMARY INFORMATION

Action: This Preliminary Evaluation is closed.

Summary:

On August 29th 2011 the Office of Defects Investigations (ODI) opened this Preliminary Evaluation (PE11-028) on Daimler Trucks North America (DTNA) for output shaft failures located in the forward-rear axle carrier of certain class 8 vehicles equipped with Arvin Meritor RT series output shaft assemblies. At the time of this (PE) opening, ODI was aware of a field campaign and two field reports thought to be related to this alleged safety concern. The DTNA campaign address a risk resulting from an incorrect heat treatment process of the output shaft (SF441AB); which was initially believed to be associated with the two field reports.

On October 21st 2011 ODI received DTNA's PE Information Request (IR) letter response which indicated no additional complaints or field reports related to the alleged defect. ODI also learned that the two original field reports noted in the opening resume were U-joint failures and were unrelated to the service campaign. DTNA claimed a total of 96 warranty claims, all related to performing the service campaign but unrelated to any field failures.

Upon receiving DTNA's PE-IR letter response ODI learned that even if a fracture were to occur in relation to the alleged defect, it would be located at the base of the splined section of the shaft opposite the output yoke and inside the axle housing. The Output shaft assembly is bolted into the axle housing and will remain secure in the event of a fracture.

Based on the fact that there are no consumer complaints, injuries or field reports and the benign consequence of the alleged defect, ODI is closing this investigation. ODI will continue to monitor this field campaign.