



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

ODI RESUME

Investigation: PE08-045
Date Opened: 07/23/2008
Date Closed: 10/24/2008
Principal Investigator: Cynthia Glass
Subject: Transmission Hose Leak

Manufacturer: Nissan North America, Inc.
Products: 2007 and 2008 Nissan Maxima
Population: 78,709

Problem Description: The automatic transmission cooler hose may have pinholes and may leak.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	63	63
Crashes/Fires:	0	1	1
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other:	0	0	331

Description of Other: Warranty Claims

Action: This Preliminary Evaluation (PE) is closed.

Engineer: Cynthia Glass
Div. Chief: Thomas Z. Cooper
Office Dir.: Kathleen C. DeMeter

Date: 10/24/2008
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Summary:

This PE was opened for model year (MY) 2008 Nissan Maxima vehicles based on Early Warning Data that the automatic transmission cooler hose may have pinholes and/or cracks resulting in a transmission fluid leak. The leaked fluid can contact the exhaust system and ignite.

Nissan has shown that the root cause of the pinholes and/or cracks in the hose is excessive stress during the manufacture forming process resulting in hose deformation at loading onto a mandrel, or damage during un-loading. Regarding loading stress, Nissan states, "when excessive stress is applied while loading the hose onto the mandrel, hose deformation (which looks like a bulge) can occur around the bending area. A crack will start to form on the inside of the hose at the area of deformation." Regarding unloading stress, Nissan states, "after the curing process, in some instances the hose stuck to the mandrel tightly and the operator had to apply a significant amount of force to pull the hose from the mandrel. If this operation was performed roughly, the interior of the hose could be damaged by the mandrel edge."

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Nissan also states, "because of the way the hoses received internal damage, a damaged hose was produced as a rare, random event rather than systematically." The transmission hose supplier, Cooper Standard Automotive, implemented process improvements that limit excessive stress on the hose during manufacture.

Nissan has shown that this transmission cooler hose was assembled on MY 2007 and MY 2008 Maxima vehicles. Nissan redesigned the transmission cooler hose on MY 2009 Maxima, and the hose is manufactured by a new supplier. Nissan has also shown that the leaks mostly occur within the first 2000 miles of service with a severe drop in incidents beyond 2000 miles of service. Most leaks have already occurred, and the one fire was minor.

A safety-related defect has not been identified at this time and further use of agency resources does not appear to be warranted. Accordingly this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that no safety-related defect exists. The agency reserves the right to take further action if warranted by the circumstances.