U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 11-007
Date Opened: 03/29/2011
Investigator: Nate Seymour **Reviewer:** Bruce York-B
Approver: Frank Borris
Subject: Haldex Brake Chamber Spring Failures

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: FREIGHTLINER LLC
Products: 2007 Sterling L-liner
Population: 1,000 (Estimated)

Problem Description: The parking brake spring may break resulting in an un-requested partial application of the wheel-end brake. This could result in a wheel-end fire.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	TBD	1
Crashes/Fires:	3	TBD	3
Injury Incidents:	1	TBD	1
Number of Injuries:	1	TBD	1
Fatality Incidents:	0	TBD	0
Other*:	0	TBD	0

***Description of Other:**

ACTION / SUMMARY INFORMATION

Action: This PE is open.

Summary:

A fleet reported to ODI that they have had multiple spring failures of the Haldex brake chambers on their vehicles. A failed spring can puncture the diaphragm allowing the parking brake to partially apply while the vehicle is in motion. This partial application is the alleged cause of 3 wheel-end fires.

The reporting fleet disassembled several brake chambers and learned that the spring had broken and subsequently punctured the diaphragm. The combination of a broken spring and a leaking diaphragm results in the partial application of the brake. This causes the brakes to drag and generate heat. The driver may be unaware that a brake is dragging as there are no explicit warning signs. The first clear indication the driver would have while driving would be a visual detection of smoke coming from the wheel-end.

ODI has opened a PE to further evaluate the cause, scope and safety risk that this alleged defect possesses.