



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

<b>Investigation:</b> PE 13-022	<b>Date Closed:</b> 10/30/2013
<b>Date Opened:</b> 06/20/2013	<b>Reviewer:</b> Bruce York-B
<b>Investigator:</b> Peter Kivett	
<b>Approver:</b> Frank Borris	
<b>Subject:</b> Parking Brake Failure	

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** Pierce Manufacturing  
**Products:** 2013 Pierce Arrow  
**Population:** 255  
**Problem Description:** Fire truck moves from a parked condition while unattended

## FAILURE REPORT SUMMARY

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

## ACTION / SUMMARY INFORMATION

**Action:** This Preliminary Evaluation is closed. See safety recall 13V-435.

**Summary:**

On June 20th, 2013, the Office of Defects Investigations (ODI) opened this Preliminary Evaluation on 2013 Pierce Arrow fire trucks based on a single Vehicle Owners Questionnaire (VOQ #10512931), which reported five unique allegations of parking brake failures. The VOQ indicated that while the parking brake was activated, the fire trucks unexpectedly started to roll.

On July 1st, 2013, an ODI investigator met with Pierce field engineers at an authorized Pierce facility located in Maryland to duplicate the alleged failure. The Pierce field engineers were able to duplicate the issue and pinpoint the failure mechanism. A quarter turn ball valve installed between the glad hands connector and the parking brake can cause a restriction and build up of air pressure in the parking brake circuit. This increased air pressure can prevent the application of the spring-loaded parking brake allowing the truck to roll when the operator believes the parking brake is applied. As a corrective action, Pierce will remove the quarter turn ball valve and reconnect the glad hand signal hose into the primary air tank.

This Preliminary Evaluation has been closed with a safety recall (13V435).