



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation:	PE 13-017	Date Closed:	11/19/2013
Date Opened:	05/22/2013	Reviewer:	Bruce York-B
Investigator:	Peter Kivett		
Approver:	Frank Borris		
Subject:	Aerial Fire Apparatus Cable Failure		

MANUFACTURER & PRODUCT INFORMATION

Manufacturer:	Sutphen Corporation
Products:	MY 2000-2012 Sutphen Vehicles with Aerial Fire Apparatus
Population:	156
Problem Description:	Cable failures resulting in unintended aerial ladder bucket retraction.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	1	1**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Number of Injuries:	5	1	5**
Fatality Incidents:	0	0	0
Other*:	0	2	2
*Description of Other: Field reports			
** Total eliminates duplicates received by ODI and manufacturer.			

ACTION / SUMMARY INFORMATION

Action: This Preliminary Investigation is closed with Safety recall 13V-565.

Summary:

On May 22, 2012 the Office of Defects Investigations (ODI) opened this Preliminary Evaluation (PE) to investigate an alleged failure of an aerial ladder bucket on a subject vehicle while in operation.

The failure occurred during a public relations event at a fire station while four civilians and one firefighter were being elevated in the aerial ladder bucket. Once the ladder was fully extended at a 45 degree angle, the ladder component of the vehicle experienced a sudden and catastrophic failure. This resulted in the ladder retracting rapidly into its bedded position. This sudden stoppage caused multiple injuries to all five of the occupants within the aerial ladder bucket.

Sutphen concluded that the main cables were worn. The bearings in the sheaves used in the extend/retract the system had seized and prevented the sheaves from rotating. The cables sliding over the non-moving sheaves resulted in excessive wear and reduced load carrying capacity. Failure of the extend/retract system can result in either the aerial becoming inoperable or cause it to unexpectedly retract. This movement could result in damage to the vehicle and/or injuries to personnel on or around the vehicle.

Sutphen is conducting a voluntary Safety Recall (13V-565) to address the safety concerns with the aerial ladder. As part of the remedy, Sutphen will inspect each vehicle for worn parts and will provide detailed instructions for vehicle owners on how to inspect and maintain the aerial ladder portion of the fire apparatus.