

PART 573 Defect and Noncompliance ReportDate: 9/11/2013

This report serves as Sutphen Corporation's notification to the U.S. Department of Transportation, National Highway Traffic Safety Administration that a defect related to the motor vehicle safety exists in certain SPH 100 aerial platforms. Sutphen decided that this defect existed in these vehicles on 8/16/2013.

I. Manufacturer, Designated Agent, and Chain of Distribution InformationManufacturer's corporate name: Sutphen Corporation

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II. Identification of the Recall Population and Size

Make: Sutphen
Model: SPH 100
Model Year(s): 2003 through 2012
Inclusive Dates of Manufacture: 12/2002 through 11/2012
Body Style/Type: Aerial Fire Apparatus
Other Information: Five section telescoping aerial platform
Total Number of vehicles: 134

Make: Sutphen
Model: SP 110
Model Year(s): 2000 through 2004
Inclusive Dates of Manufacture: 12/1999 through 11/2004
Body Style/Type: Aerial Fire Apparatus
Other Information: Five section telescoping aerial platform
Total Number of vehicles: 17

Make: Sutphen
Model: SPI 112
Model Year(s): 2003 through 2011
Inclusive Dates of Manufacture: 12/2002 through 11/2011
Body Style/Type: Aerial Fire Apparatus
Other Information: Five section telescoping aerial platform
Total Number of vehicles: 3

Make: Sutphen
Model: SAI 110
Model Year(s): 2003 through 2011
Inclusive Dates of Manufacture: 12/2002 through 11/2011

Body Style/Type: Aerial Fire Apparatus
Other Information: Five section telescoping aerial water tower
Total Number of vehicles: 2

Grand Total of Vehicles: 156

Percentage of recall population estimated to contain the defect: 5%

How was the recall population determined?

Based on the nature of the problem, it was determined that all five section aerial ladders would be included. Manufacture dates based on production of all five section aerals.

How is recall population different from similar vehicles not included?

The extend/retract system on the three and four section aerals is a slightly different configuration. Also, since the loads and capacities are less on these models, the resulting stress in the extend/retract components is reduced.

III. Description of the Defect or Noncompliance and Chronology of Events

Description of the defect:

The main extend cables failed, which resulted in the ladder descoping.

Description of the cause(s) of the defect:

The main cables were worn out. The bearings in the sheaves that used in the extend/retract system had seized and prevented the sheaves from rotating. This caused the rope to slide over the non-moving sheaves which resulted in excessive wear and reduced load carrying capacity. Lack of proper maintenance is what caused the bearings to fail.

Description of the safety consequence(s) of the defect:

Failure of the extend/retract system can result in either the aerial to become inoperable (i.e. will not extend/retract properly) or cause it to unexpectedly retract or descope. This movement could result in damage to the vehicle and/or injuries to personnel on or around the vehicle.

Identify warnings that may have preceded the defect:

The failure of the bearings in the sheaves should have produced a large amount of noise. This noise should have been noticeable enough to cause further inspection. Upon inspection, evidence of wear on the cables and/or sheaves would have been visible.

Chronological Summary of Events:

8/15/2012 – Notification received of an incident involving a 2009 SPH 100 in Green Valley, AZ

8/16/2012 – Representatives from Sutphen Corporation arrived in Green Valley to inspect the vehicle. Representatives from the Arizona Department of Public Safety were also present.

8/17/2012 – Notification sent to all dealers providing information on the incident.

8/19/2012 – Sutphen personnel reviewed all available documentation and information. Based on preliminary information, lack of maintenance appeared to be the leading cause.

8/21/2012 – Service Bulletin sent to all Sutphen customers informing them of the importance of proper maintenance and inspection. This document also provided contact information if the vehicle owners had questions or needed more information.

9/5/2012 – Additional Sutphen personnel, along with a representative from the company that manufactured the wire rope, went to Green Valley to further examine the vehicle and the failed components.

9/26/2012 – Sutphen personnel travelled to Green Valley to review the vehicle in question. This meeting included representatives from the different parties involved.

11/12/2012 – Vehicle arrives at Sutphen Corporation (Dublin, OH)

1/28/2013 – Disassembly and further inspection of the vehicle. Following the inspection, the vehicle is repaired and returned to Green Valley.

This incident was unique in that there were no records of a Sutphen platform failing in this manner. Everything that was examined led to the conclusion that with proper maintenance and inspection, this failure would not have occurred.

IV. The Remedy Program and Its Schedule

Describe the remedy program:

All Sutphen customers and dealers have been notified of the importance of proper maintenance and inspection. Contact information was provided to answer questions and address any concerns. A core group of technicians was trained on the proper way to maintain and inspect the aerial ladder portion of the fire apparatus. These technicians visited every customer with one of the subject vehicles and provided them with this information. They also inspected the extend/retract components and noted any areas that needed attention. All components that were deemed sub-par were repaired or replaced.

Estimated Dates:

Dealer Notification: Completed by 8/21/2012

Customer Notification: Completed by 8/21/2012

Training of Technicians: Completed by 2/1/2013

Field Visits of All Vehicles: Completed by 5/17/2013

Distinguishing Characteristics:

Since this is a maintenance and inspection issue, there may not be a visible difference between vehicles that have been inspected versus those that are not. There are, however, visible signs that a vehicle is in need of repair. Sheaves that are off center and worn or broken strands of wire are some of the indicators that would be noticed during a visual inspection.