Part 573 Safety Recall Report 17E-025

Manufacturer Name : Sprague Devices
Submission Date : MAY 10, 2017
NHTSA Recall No. : 17E-025
Manufacturer Recall No. : 17V-156, SR17-09

Manufacturer Information :

Manufacturer Name : Sprague Devices
Address : 527 West US Highway 20
Michigan City IN 46360
Company phone : (219) 872-7295

Population :

Number of potentially involved : 1,179
Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : Sprague Devices
Model : Heavy-Duty Bus Pantograph Wiper Arm
Part No. : [Multiple P/N(s)]
Size : NR
Function : NR
Descriptive Information : Certain Sprague Devices brand wiper arms may bend or detach during service.
Production Dates : APR 21, 2016 - JUN 23, 2016

Description of Defect :

Description of the Defect :	Sprague Devices has determined that certain Heavy-Duty Bus Pantograph Wiper Arms may develop cracks in the mount casting that attaches them to the wiper motor. In some cases, the arms may bend or detach from the vehicle. Sprague Devices Part Numbers impacted listed below: 41810-05-BW, Version 1 41825-13-BS, Version 1 37247-1807-BWS, Version 1 38251-1206-BWS, Version 1 41340-13-BS, Version 1
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	A loss of wiper function may reduce visibility through the front windshield, potentially increasing the risk of a crash.
Description of the Cause :	A new wiper arm design was introduced that utilized a cast zinc mount with a thin-walled open pocket section. This region had insufficient durability and experienced cracking, causing some arms to bend or detach during operation.
Identification of Any Warning that can Occur :	Localized cracking of the wiper arm mount casting may be detected through visual inspection.

Supplier Identification :

Component Manufacturer

Name :	NR
Address :	NR
	NR
Country :	NR

Chronology :

2014 - 2015: Sprague Devices developed a wiper system incorporating a new wiper arm design that contained a revised arm head/mount casting. Prototype castings were procured and utilized to produce prototype wiper systems. These prototype systems were used for customer samples, internal development testing, and production process validation. Prototypes wiper systems were provided to select customers as proof of concept to transition to the new design. Analytical and physical validation testing was completed on remaining internal Sprague Devices samples.

2016 - 2017: Sprague Devices launched tooling to produce new design wiper arms during Q1 2016. Tools were completed and manufacturing of the new design wiper arm production began during Q2 2016. Samples from the initial production runs were selected for production validation/continued conformance testing. Test results during an accelerated life durability test cycle showed signs of potential field issues just beyond the Sprague Devices warranty period. Sprague Devices reached out to the OEM(s) that received the original design wiper arms (Version 1) to discuss potential field concerns and propose a proactive replacement program. Gillig partnered with a specific bus fleet that was experiencing field issues with the original design wiper arms (Version 1). Based on a high incidence rate of field issues (14%) within this fleet, Gillig determined and Sprague Devices concurred that a proactive field campaign was the correct resolution path.

Description of Remedy :

Description of Remedy Program :	Remedy: Sprague Devices redesigned the arm head/mount casting based on the potential for premature field issues. Additional FEA testing and corresponding accelerated durability test cycles indicated sufficient fatigue life improvement. Reimbursement: Sprague Devices is cooperating with each OEM to proactively replace all original design wiper arms (Version 1). Sprague Devices will provide free-of-charge replacement parts directly to Gillig, Prevost, and BYD as required to support all customer return/recall activities.
How Remedy Component Differs from Recalled Component :	The remedy component, improved arm head/mount casting, can be identified by visual inspection of the underside pocket of the casting contained in the wiper arm assembly. The improved design casting has increased wall thickness and the spring hook cavity has been revised to a large radius bend. Visually, the improved design casting pocket appears as a single groove shape. The original casting has multiple pockets that represent somewhat of an X-type shape. Pictures have been provided to Gillig, Prevost, and BYD and can be reproduced by Sprague Devices as necessary.
Identify How/When Recall Condition was Corrected in Production :	Sprague devices kicked off the improved arm head/mount casting tooling and launched the improved wiper arm design for production in July of 2016.

Recall Schedule :

Description of Recall Schedule :	Sprague Devices intends to continue working directly with Gillig, Prevost, and BYD to replace all original design wiper arms (Version 1). Improved design wiper arms are in production today and available for replacement orders as necessary.
Planned Dealer Notification Date :	NR - NR
Planned Owner Notification Date :	NR - NR

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name :	Gillig
Address :	25800 Clawiter Road Hayward CA 94545
Country :	US
Company Phone :	NR

Name :	Prevost
Address :	65, rue Prévost Sainte-Claire 00 G0R 2V0
Country :	CA
Company Phone :	NR

Name :	BYD
Address :	1800 S Figueroa Street Los Angeles CA 90015
Country :	US
Company Phone :	NR

* NR - Not Reported