OMB Control No.: 2127-0004

Part 573 Safety Recall Report

18E-109

Manufacturer Name: TSE Brakes
Submission Date: APR 16, 2019
NHTSA Recall No.: 18E-109
Manufacturer Recall No.: NR



Manufacturer Information:

Manufacturer Name: TSE Brakes

Address: 2310 Industrial Drive SW

Cullman AL 35055

Company phone: 256-736-6275

Population:

Number of potentially involved: 264 Estimated percentage with defect: NR

Equipment Information:

Brand / Trade 1: TSE Brakes

Model: Flat Mounting Washer for Brake Actuator

Part No.: 1003014-PL

Size: 1.3 diameter x 0.13 thick

Function: NR

Descriptive Information : All fractured washers were from a specific supplier, only utilized for three

shipments of washers. The recall population was determined by actuator part numbers built during the time-frame these washers were used that were used for

applications with a slotted style mounting bracket.

Production Dates: JUL 24, 2018 - AUG 10, 2018

Description of Defect:

Description of the Defect: Vendor supplied flat washers used with a nut to fasten the brake actuator to

the vehicle bracket are not to specification and may fracture.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: The fracture of the washer may in some cases result in a loss of clamp load on

the mounting bolt. The reduction in clamp load of the mounting bolt may reduce the braking force and potentially increase the stopping distance. There have been no field reported washer fractures. Number of potentially

involved brake actuators are for the U.S.

Description of the Cause: Fractured washers have failed due to hydrogen assisted cracking. This

cracking is caused by a combination of hydrogen embrittlement of the washer coupled with a deformation of the washer when used with a slotted style

bracket for truck applications.

Identification of Any Warning None. that can Occur:

Supplier Identification:

Component Manufacturer

Name: Bamal Fastener Corporation

Address: 13725 S Point Blvd.

Charlotte NORTH CAROLINA 28273

Country: United States

Chronology:

10/29/2018: Received notification from Meritor China of fractured washers upon installation.

10/30/2018: Notified washer supplier, Bamal Fastener Corporation of issue and requested lot information.

11/6/2018: Received sample of fractured washers from Meritor China.

11/9/2018: Completed metallurigcal and SEM analysis of fractured washer.

11/19/2018: Completed torque testing for hydrogen embrittlement.

Description of Remedy:

Description of Remedy Program: Brake actuator part numbers, TSE Brakes invoice numbers and date codes

with suspect washers will be provided to customers. A recall notice will be sent detailing the washer replacement procedure. A standard allocation

with labor hours will be provided to charge TSE Brakes.

How Remedy Component Differs The recalled washers have a distinct manufacturer's marking.

from Recalled Component :

Identify How/When Recall Condition A different lot of washers was used beginning on 8/10/2018 from a

was Corrected in Production: different sub-supplier.

Recall Schedule:

Description of Recall Schedule: Communication to affected customers is intended by 12/15/2018.

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: Xuzhou Meritor

Address: 9 Zhjang Road Tongshan

Jiangsu Province XuZhou 00

Country: CN Company Phone: NR

> Name: Spartan Motors Address: 1541 Reynolds Rd.

> > Charlotte NC 48813

Country: US Company Phone: NR

> Name: Mamon Herrington Address: 13001 Magisterial Drive

> > Louisville KY 40223

Country: US

Company Phone: 3173633460

Name: Hendrickson Trailer Suspension Systems

Address: 2070 Industrial Place SE

Canton OH 44707

Country: US

Company Phone: 3304890034

Name: Sisamex

Address: Carretera Monterrey- Colombia

KM 6 Gral Excobedo Nvo. Leon 00 66050

Country: MX Company Phone: NR

^{*} NR - Not Reported