

13V-025
(4 pages)



Stoughton Trailers, LLC

DEFECT INFORMATION REPORT

FATIGUE CRACKS IN SUSPENSION SUBFRAME FRONT ATTACHMENTS AND LOWER RAILS ON AHV MODEL TRAILERS

1. Manufacturer's name/address:

STOUGHTON TRAILERS, LLC
416 South Academy Street
Stoughton, WI 53589

2. Vehicles Involved:

The vehicles covered by this Report are AHV model trailers (commonly referred to as "grain haulers" or "Ag hoppers") for trailer model years ("MY") 2009 through 2011. The trailers were produced from December 17, 2007, when production of the subject trailers began, through October 28, 2010. Some of these trailers, however, are not subject to both of the issues described below.

The subframe front attachment issue applies to trailers produced from December 17, 2007 through October 28, 2010. Trailers manufactured after that date were equipped with a newly designed suspension subframe front attachment.

The lower rail issue applies to trailers produced from December 17, 2007 through September 24, 2009. Trailers manufactured after that date were equipped with a redesigned structure.

3. Total number of vehicles covered by this report:

1115 (638 suspension subframe front attachment and lower rail; 477 suspension subframe attachment only)

4. Approximate percentage of vehicles estimated to actually contain the defect:

All

5. Description of the defect:

As described below, the trailers covered by this report have exhibited fatigue cracks in two areas of the structure.

A. Stoughton has received a number of warranty claims for fatigue cracks found in the suspension subframe channels to hopper crossmember front attachment. This includes claims associated with the original version of the front attachment as well as claims associated with a second version. After October, 2010 a third version of the front attachment design was introduced. No cracks have been reported in this third version.

The suspension subframe on an Ag Hopper trailer is located under the rear of the box, behind the aft hopper and ahead of the rear wall. It is a ladder structure that consists of a pair of parallel subframe channels, made of steel or aluminum, connected by several short crossmembers. There are also four longer crossmembers mounted on top of the subframe channels that extend out to both sides and connect to the bottom rails of the trailer sidewalls. The pair of subframe channels in the ladder structure is also connected to the rear wall bottom rail by two rear attachments and to a crossmember on the aft hopper slope with two front attachments. The fatigue cracking is occurring at the two front attachments.

Stoughton is not aware of any instances in which cracks in the suspension subframe front attachment have led to a loss of vehicle control or a crash.

B. In addition, Stoughton has received reports of fatigue cracks in the lower rail of some of the subject trailers. Stoughton's engineers have identified the cause of the fatigue cracks to be "racking," which is lateral movement and flexing of the structure.

Stoughton's examination of trailers in the field and its testing indicates that these fatigue cracks have developed over time, after exposure to repetitive loading. Moreover, a pre-trip vehicle safety inspection that should be regularly performed by the vehicle's driver would discover the cracks long before the cracks reached the point of possible compromised structure that could lead to failure.

Stoughton is not aware of any instances in which a lower rail has completely fractured, or of any instances in which cracking of a lower rail has led to a loss of vehicle control or a crash.

6. Chronological summary of events leading to this determination:

A. The first warranty claim for a suspension subframe front attachment fatigue crack was received in May 2009. A new stronger attachment ("2nd version") was developed to replace cracked front attachments reported in the field, and that new design was used in all of the subject vehicles manufactured after June 2009.

The first warranty claim for fatigue cracking in 2nd version of the suspension subframe front attachment was received in September 2010. A new "3rd version" of the front attachment was developed for MY 2012. This 3rd version has been subsequently used to replace all original

version and 2nd version front attachments that have been found to have fatigue cracks. All claims for front attachment cracks have been covered by warranty.

The 3rd version was implemented into new production trailers starting in July 2011. Although Stoughton has not received any reports of cracking in the 3rd version, Stoughton continues to conduct validation testing of the 3rd version to assure that it will provide an adequate service life.

Initially, Stoughton thought that any problems associated with the front attachments were benign and did not raise safety issues. In the second half of 2012, Stoughton became concerned about the possible effect that these fatigue cracks could have on the rest of the trailer structure, and it initiated an investigation. Stoughton's engineers still believe that these fatigue cracks in the front attachment do not pose an immediate risk of failure or loss of control. However, Stoughton was not able to rule out the possibility that over the 15-year life expectancy of these trailers, cracks in the suspension subframe front attachments that are not repaired could lead to a failure at some point. For that reason, Stoughton recently decided to conduct a voluntary safety recall of all the subject trailers equipped with either the original version or the 2nd version of the front attachment to address the long-term potential consequences of this fatigue cracking.

B. Stoughton first learned about the existence of fatigue cracks in the lower rail of the subject vehicles through a warranty claim submitted during July 2010. Although a small number of additional warranty claims on this issue were received over the succeeding months, Stoughton's investigation of the issue did not identify any definitive cause. Thereafter, Stoughton continued to repair any trailer that had cracking on the lower rail by replacing the lower rail with a new lower rail and by reinforcing the crossmember area.

In late December 2010, a customer filed a complaint with NHTSA relating to cracks appearing on the lower rail of a trailer. In mid-January 2011, Stoughton was contacted by Tom Bowman of ODI regarding this complaint. Mr. Bowman requested a copy of the document showing the repair procedure and requested Stoughton to assess the risk to safety if the repair was not completed. Stoughton responded on January 24, 2011. At that time, Stoughton's engineers determined there was not a safety risk because the cracking did not result in a compromised structure defect that would cause a failure of the lower rail. Stoughton's engineers continued to do testing.

On a number of occasions, Stoughton communicated with Mr. Bowman relating to the status of its investigation. Among other things, Stoughton advised Mr. Bowman that it was doing further tests with the vendor relating to the aluminum material used for the lower rails. During this period of time, Stoughton's engineers focused on the theory that the cracking was a result of certain lower rails not meeting the company's specifications for the quality of the aluminum. Stoughton hired an expert to review this theory, who concluded that the material met the specifications.

More recently, after additional reports were received, Stoughton focused its analysis on the crossmember and the cross bars that provide stability and structure underneath the trailer.

Stoughton's engineers performed additional tests that established that the cracks were caused by stress between the crossmembers where there was inadequate lateral stability.

Stoughton's engineers believe that these fatigue cracks do not pose an immediate risk of failure or loss of control. However, Stoughton was not able to rule out the possibility that over the 15-year life expectancy of these trailers, cracks in the lower rail that are not repaired could lead to a failure of the rail at some point. For that reason, Stoughton recently decided to conduct a voluntary safety recall of those trailers manufactured prior to September 24, 2009, when the lower rail area was redesigned.

7. Program for remedying the defect:

Stoughton plans to conduct a voluntary safety recall under which repairs will be performed to address both of the issues described above.

A. With respect to the front attachment issue, Stoughton plans to replace the original and 2nd version suspension subframe front attachments with the 3rd version of the front attachment.

B. With respect to the lower rail issue, Stoughton plans to remove two existing crossmembers immediately forward of the front hopper and replace them with a new crossmember assembly. That new assembly will contain two new crossmembers and a full width shear plate to prevent the initiation of fatigue cracks in the lower rail. Stoughton will also add a reinforcement plate to the lower rail adjacent to the new crossmember assembly.

All of these repairs will be performed at no charge. Moreover, as previously discussed with Mr. Bowman of ODI, Stoughton plans to perform additional service repairs to the structure of all trailers that are presented for remedy under this recall. While Stoughton's engineers believe that these repairs will improve the durability of the trailers, the issues they address are not considered safety defects. Stoughton will provide Service Campaign notifications at the same time as the Recall owners notification is provided to NHTSA.

Stoughton plans to begin notifying owners and dealers within 90 days. At the request of ODI, Stoughton will advise owners of their rights with respect to potential reimbursement pursuant to 49 CFR 573.13, even though Stoughton believes that all reports of cracking to date have been addressed at no charge under the vehicle warranty, which has been extended with respect to these issues.

Stoughton will provide NHTSA with a copy of its proposed owner notification letter at least five days prior to commencing the recall campaign.



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