



REPAIR DOCUMENT

Kemlite Roof Rivet Edge Distance Inspection

Repair Document #: **RD-00107A**

Date: Revised December 16, 2020

Ref Eng. Project:

Contact Information:

If you have any questions about this Inspection Document, please contact Stoughton Trailers Customer Service at 608-873-2555 or warranty@stoughtontrailers.com.

Subject:

Kemlite translucent roofs on trailers are more susceptible to damage than the more common aluminum roofs. This is the tradeoff for improved lighting inside of trailers. Damage of some form is most often the cause of Kemlite roof failures and is the reason they must be repaired as soon as any damage occurs.

This document addresses the rare occasions Kemlite roofs have been found to fail due to a manufacturing issue with inadequate distance from edge of Kemlite sheet to rivet holes. This can cause the Kemlite sheet to pull away from the top rail, causing the top rail to become unstable and buckle. If a trailer is found to have this issue it is recommended that the other trailers in the same order or orders built in the same period be inspected for adequate rivet hole edge distance.

Models:

Dry van trailers with Kemlite translucent roofs that may have issue with rivet hole edge distance as identified by Stoughton Trailers Customer Service and Engineering.

Issue:

Trailers with Kemlite translucent roofs that are suspected to have rivets too close to the edge of the roof sheet should be inspected. This is not a quick visual inspection as the edge of the Kemlite roof is covered with a J-channel trim. Removing the J-channel trim to inspect would require removing all the edge rivets which is very time consuming. Therefore, we have developed the following procedure of drilling through the J-channel but not the roof sheet to determine if there is adequate edge distance at roof rivets.

Parts Required:

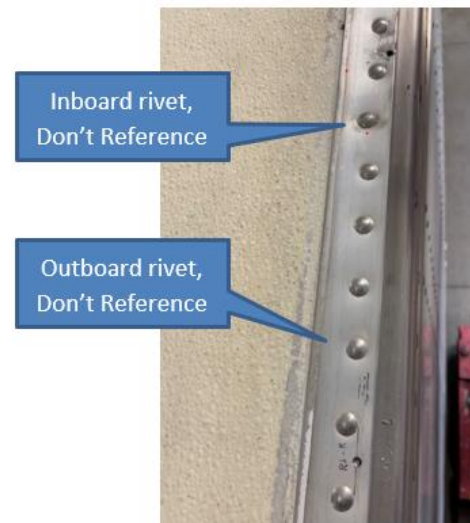
- Caulk

Tools:

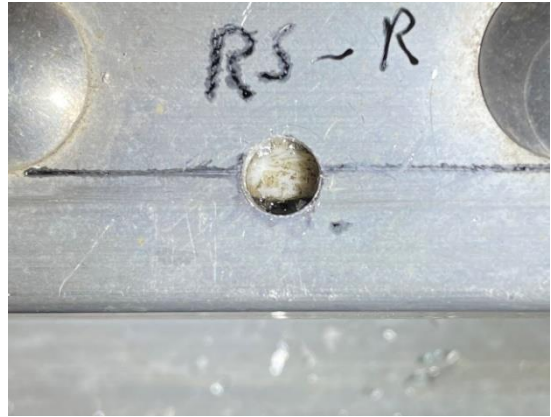
- Electric cordless drill with 3/16" drill bit
- Tape measure or ruler
- Automatic Center punch, spring loaded automatic

Inspection:

1. Use the sidewall panel joints as the reference locations for where to inspect the roof sheet edge distance to rivets. Check within 12 to 18 inches of the panel joints.
 - a. The rivets locations from the edge of the J-channel sometime vary so look for rivets at the most consistent distance from the edge.
 - b. Avoid using the occasional rivets that are further inboard or further outboard.
2. Check the roof rivet edge distance in a minimum of 3 places on each top rail (6/trailer):
 - a. Front side panel joint (1st splice on 53 ft trailer)
 - b. Center side panel joint (7th splice on a 53 ft trailer)
 - c. Rear side panel joint (13th splice on a 53 ft trailer)
3. At the location where rivet edge distance is to be checked, draw a line between the outer edges of two rivet head using a straight edge.
4. At the approximate center of the line drill a 3/16" hole through the J-channel **but not through the Kemlite below it**. With a battery powered drill this can be done with light pressure and care. If you have problems, then a drill stop on the tip of the drill bit may be necessary. An air powered drill is harder to control and will need a drill stop.



5. If the Kemlite sheet extends to the outboard edge of the hole or close to it as shown in the picture, the rivet edge distance is **OK**.
- Mark the J-channel near the hole with a check mark to indicate it is OK.



6. If the Kemlite does not extend to near the outside edge of the hole it is **NOT OK** and has a rivet edge distance issue.
- Mark the J-channel near the hole to with an X to indicate not OK.

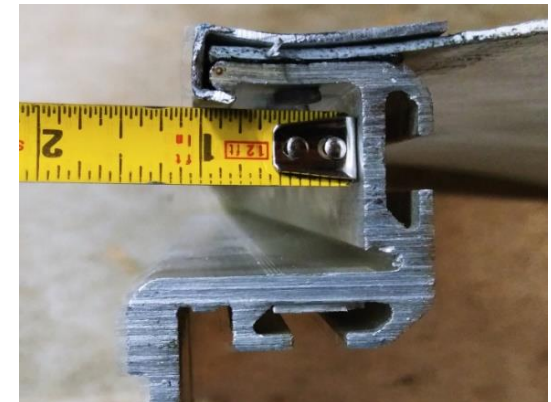


7. If the edge distance is **NOT OK** than perform additional inspections on approximate 4 ft increments (joint lap spacing) until adequate rivet edge distance is found.

8. Fill holes drilled in J-channel with caulk to seal.

9. Measure from the top rail recess to the outside of the J-channel
- Should be 15/16" to 1-1/16".

10. Fill out the attached form with the inspection findings and send a copy via email to Stoughton Trailers Customer Service.



NOTE: Stoughton Trailers is working on a Corrective Action procedure to address Kemlite sheets with inadequate rivet edge distance. As soon as it is validated, we will provide instructions.

Email copy to Stoughton Trailers Customer Service, warranty@stoughtontrailers.com.

Company:	
Company Trailer No.:	
Last 8 VIN charcters:	
Date Inspected:	

Kemlite Roof Rivet Edge Dist						
Sheet Splice Locaion	Roadside			Curbside		
	OK	NOT OK	J-Chn Measurement	OK	NOT OK	J-Chn Measurement
1 (front)						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						

Comments
