HSM
Transportation Solutions

October 26, 2017

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National Highway Traffic Safety Administration
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Dear Mr. Xiaoming,

Please find summarized below, the questions you presented in your email dated October 18, 2017. I have presented your questions, followed by HSM's response to each. I believe HSM's response to the RQ17-006 is in-depth and complete in its content.

The progression of design changes and modified test procedures that affected this recall, although seemingly complicated, are actually straightforward. HSM determined the scope of the first population based on product production data, starting from the initial launch of the new RV Quad Step assembly, start of production October 16, 2012 thru February 04, 2014. Up to the start of production, which integrated an engineering design change, introducing the #55 rivet into the hinge joint between the second and third step, (defined as the 2nd step from the ground level and the 3rd step from the ground level). HSM submitted the initial population scope to NHTSA on Feb 20, 2015, after our determination that a safety related defect exists in the design of the RV Quad Step assembly. The HSM team then launched a full investigation of the quad step issue, and an examination of the RV Step test protocol. Engineering then determined that the RV Step test protocol was inadequate to meet the performance expectations of the market application. As a result, HSM determined to expand the scope of the recall to include product manufactured with the #55 rivet, with a production start date of February 14, 2014 thru December 16, 2014.

I understand your confusion with the timeline and the changes, not having the product knowledge or association with the data set could certainly produce this result. If you feel that it would be beneficial, I would be happy to participate in a meeting via conference line or at your office, to lend more clarity to this matter.

1. In your submitted RQ response file, RCNOC-15E013-9613.xlsx, it listed all affected step assemblies, total of 17469 units, including 11 model/part numbers: 994240RCW, 994240R, 984240RW, 994240RXW, 994240RBBW, 9942401RXW, 994204RFXW, 235458LCI, 235458LCIA, 349749LCI, 349749LCIA. But in the 753 HSM submitted to NHTSA, only 5 model/part numbers were listed: 994240RCW, 994240R, 984240RW, 994240RXW, and 994240RBBW. If only these five models are listed, it would only count total of 8173 affected step assemblies out of total 17469 scope population.

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HSM Response: *HSM has investigated this issue and determined that the "Equipment Information" section of the 573 portal was inadvertently overlooked when the population and scope of the recall changed. At the time these changes were made, HSM created a 573 Report, in a word document format, dated March 27, 2015 REV.A032715 (see attachment # 1). The updated equipment information is reflected on this document and was included in the total recall population of 17,469 RV Steps.*

The total population for this recall is reflected in the HSM document "RV Step Sales History By Customer (NHTSA Document # RCORRD-15E013-5489) submitted to the NHTSA Recall Portal on March 27, 2015 and in the document, Purchaser List Matrix (NHTSA Document # RCNOC-15E013-9613) submitted to the NHTSA Recall Portal on April 07, 2015. The Purchaser List Matrix also reflects the RV Step Models affected by this recall.

Manufacturer, Distributor and Customer notifications issued by HSM for Recall 15E013 included all step models as defined in the Purchaser List Matrix (NHTSA Document # RCNOC-15E013-9613) and encompassed the entire population of 17,469 RV Quad Steps as defined in the RV Step Sales History By Customer (NHTSA Document # RCORRD-15E013-5489).

2. In your submitted RQ response file, PART 7 - HSM RESPONSE_RECALL QUERY RQ17-006.docx, it stated affected step assemblies manufactured with the #55 rivet, with a production start date of February 14, 2014 thru December 16, 2014. But in the 753 HSM submitted to NHTSA, the production dates were OCT 18, 2012 - FEB 14, 2014.

HSM Response: *HSM's original 573 Report, accepted by NHTSA on February 25, 2015 via the Web Portal, reflected only the initial recall population of 6,498 RV Steps. This population was defined by to the use of the # 96 rivet, HSM part # 287596, joining the 2nd and 3rd step (2nd and 3rd step, defined as the 1st step from the ground level and the 2nd step from the ground level) of the Quad step. HSM engineering had determined this design configuration to be inadequate, based on field complaints and internal testing. The dates reflected on the original 573 report, October 18, 2012 - February 14, 2014, only included product determined to contain this design defect (6,498 Steps).*

After the submittal of the original 573 report and prior to issuance of any recall notifications, HSM changed the scope of the recall. This change in population scope was predicated by customer complaints and a change in the RV Step test protocol, as defined by HSM engineering. Based on the results of these test, HSM engineering determined that the # 55 rivet, which had been introduced into the step design on February 14, 2014, had a shoulder length that was determined to be to long. The additional shoulder length contributed to rivet pullout during life cycle test. At this time, engineering also determined that #08 or #80 rivet, at the top step tread, inboard position may be weakened due to the failure of the #55 rivet. The #08 or #80 rivets were also identified for replacement with this recall.

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The revised population is based on the scope of the first population (# 96 rivet) with start of production October 18, 2012 - February 14, 2014, plus the total of all RV Quad Step assemblies produce with the #55 rivet, part #287755 with start of production February 14, 2014 thru December 16, 2014. This revision of the population is reflected in the revised 573-Amendment 1, submitted to NHTSA via the web portal on March 27, 2015.

The timeframe for the revised total recall population is October 18, 2012 thru December 16, 2014 and the total recall population is 17,469.

3. In the same submitted RQ response file, it stated affected step assemblies manufactured with the #55 rivet, with a production start date of February 14, 2014 thru December 16, 2014. But in the 753 HSM submitted to NHTSA, it stated: A larger diameter rivet, and thus a stronger rivet, was placed into production on February 16, 2014 which is also confusing.

HSM Response: *You are correct in that a larger diameter rivet was placed into production on February 16, 2014. This change was to incorporate the #55 rivet, which was a larger diameter, replacing the #96 rivet. It was later determined that the hinge joint which utilized the #55 rivet had an unanticipated design flaw, in that the shoulder length of this rivet was two long, allowing the step linkage to have an excessive gap between linkage brackets. In life cycle testing, this gap resulted in rivet pullout.*

As the results, we would like HSM to take an action to clarify the differences, and amend the 573 accordingly, and notify all affected dealers/distributors. Please send a written letter to us for your updates. Thank you very much for your supportive efforts for this matter!

HSM Response: *HSM will update the 573 report via the NHTSA web portal, to reflect the proper "Equipment Information". All other communications relating to this recall are correct in the scope of population dates and total population count and have been properly communicated to the manufacturers, distributors and customers. Therefore, HSM request that NHTSA not require a secondary notification, as HSM believes such notification will only be confusing to the recipients.*

Regards,



Dan Daniels

V.P. of Innovation / Compliance Officer
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