



March 3, 2014

Ms. Nancy Lummen Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attn: Recall Management Division (NVS-215)
1200 New Jersey Ave, SE
Washington, DC 20590

Dear Ms. Lewis,

Pursuant to the requirements of 49 CFR Part 573, Landi Renzo USA hereby submits the attached Defect Information Report concerning a voluntary safety recall of certain 2011-2014 model year Ford E-150/250/350 vehicles which were converted to operate with Landi Renzo USA CNG Systems.

Should you have any questions regarding this report, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Marco Genova".

Marco Genova
Vice President Engineering
Landi Renzo USA

Enclosure

DEFECT INFORMATION REPORT

573.6(c)(1) – Manufacturer’s Name

Landi Renzo USA

573.6(c)(2) – Vehicles Potentially Involved

2011-2014 model year Ford E-150/250/350 vehicles operating with Landi Renzo USA CNG systems that were converted from January 2, 2011 to February 24, 2014.

573.6(c)(3) – Total Number of Vehicles Involved

Approximately 343 Ford E-series vehicles (E150: 12, E250: 106, E350: 225) converted with Landi Renzo USA CNG systems

573.6(c)(4) – Percentage of Vehicles Actually Containing the Defect

The approximate percentage of vehicles that may experience the subject condition is unknown.

573.6(c)(5) – Defect Description

There have been occurrences where both the left and right rear side arm brackets that support the rear CNG cylinder cradles assembly didn't meet the design specifications set forth by Landi Renzo USA for these components. Due to excessive wear and tear, there is a probability that, the ear of both brackets could develop cracks and eventually breaks. The effect of the ears of the bracket breaking may eventually cause the main rear structure to form cracks on the inner (center) portion of the structure. As the crack develops the rear structure may completely lose its structural integrity and in extreme worst case scenario the cylinder may come dislodged from the rear structure.

At the time of writing Landi Renzo USA has observed this occurrence only on vehicles with mileage greater than 80,000 miles. Landi Renzo USA is not aware of any accidents or injuries related to this issue.

573.6(c)(6) – Chronological Summary of Events Leading to Determination

November 19, 2012 – Landi Renzo USA received a call from a customer regarding a CNG leak on a high pressure CNG hose at the rear tanks. Upon further investigation as to how this leak had occurred, it was discovered that the rear structure side arm brackets had broken. Landi Renzo conducted an inspection of the 3 other vehicles in its fleet that were converted to CNG using Landi Renzo components. The other 3 vehicles did not show any signs of damage to the structure and/or its supporting parts. A follow-up was later made to the complete structure being replaced approximately 2 weeks later and the all parts removed from vehicle were returned to Landi Renzo. The complete structure was inspected for defects that may have occurred from manufacturing. No defects were found; all parts appeared to be sound in quality of workmanship. Landi Renzo concluded its investigation as an isolated incident as this had only occurred on this one vehicle and there were numerous amounts of vehicles in the field that had not exhibited this form of damage.

Landi Renzo did a follow-up visit to assess if the issue had been resolved. Landi Renzo completed an inspection on all of the vehicles that were converted to CNG using Landi Renzo components. Upon completion of the inspection, it was determined that all components and supporting brackets were functioning according to specifications. There were no visible signs of cracks or defects. The vehicle that initially had the issue had acquired an additional 40,000 miles.

July 17, 2013 – Landi Renzo was contacted by the same customer and was informed that the incident had yet again occurred on the same vehicle. This vehicle now has 307,556 miles at the time of the incident. As of this date, there still had not been any other cases known to Landi Renzo regarding any rear structures having support brackets failure. Landi Renzo requested maintenance schedules from the

customer and was never given any information. The customer was advised to replace the complete rear structure and all supporting brackets and keep proper maintenance. This investigation then was treated as a possible installation issue.

November 4, 2013 – Landi Renzo received a service request regarding rear tank brackets being cracked. Upon inspection of the vehicle, Landi Renzo found the rear side arms had broken. This vehicle had 101,992 miles at the time of findings. The customer was advised to conduct an inspection on all vehicles in their fleet and inform Landi Renzo of all findings. An additional 3 vehicles were found to have early signs of cracking/defects on the ear of the side arms. Landi Renzo informed the customer to replace all of the brackets on these vehicles prior to putting these vehicles back into service. Landi Renzo opened up an investigation regarding the rear structure of the E-Series and this investigation was geared toward the design and integrity of the structure.

During this investigation Landi Renzo received one additional request for broken rear side arms. These parts were also replaced free of charge.

December 2013 - February 2014 – A finite element analysis (FEA) study determined that the structure did not meet Landi Renzo's structural loading scenarios and specifications. The mode of failure observed on failed structures was confirmed.

February 24, 2014 – Landi Renzo USA decided that a safety-related defect exists and that a recall campaign would be conducted.

573.6(c)(8) – Proposed Remedy Description, Reimbursement and Notification Schedule

Owners of all potentially affected vehicles will be notified by mid March 2014 to take their vehicles to a Landi Renzo USA service center or a Ford dealer for inspection and replacement. The service center or Ford dealer will replace the left and right rear side arm brackets with the new brackets with a modified and reinforced design which addresses the issue. The inspection and repairs will be performed for owners of all potentially affected vehicles at no charge for parts or labor. The owner letter will instruct vehicle owners who have paid to have this condition remedied prior to this campaign how to apply for a refund.

The draft owner notice and envelope and the draft dealer notice will be provided to NHTSA for review. Copies of all other notices and bulletins will also be provided to NHTSA as they become available.