

Safety Defect and Noncompliance Report Guide for Equipment
PART 573 Defect and Noncompliance Report⁴

On March 28, 2008, SAF-HOLLAND, Inc. decided that a defect which relates to motor vehicle safety exists in items of motor vehicle equipment listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared:

April 4, 2008

Furnish the manufacturer's identification code for this recall (if applicable):

Not Applicable

1. Identify the full corporate name of the fabricating manufacturer/brand name/trademark owner of the recalled item of equipment. If the recalled item of equipment is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

SAF-HOLLAND, Inc
PO Box 2099
467 Ottawa Ave.,
Holland, MI 49422-2099

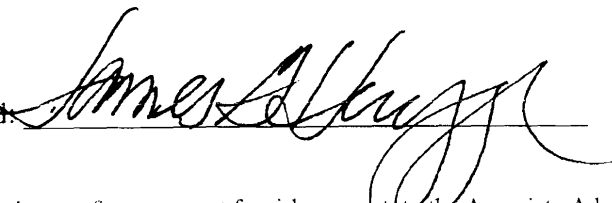
Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

James G. Huyge, Director of Reliability & Risk Management

Telephone Number: (616) 546-6467 Fax No.: (616) 396-1511

Name and Title of Person who prepared this report.

James G. Huyge, Director of Reliability & Risk Management

Signed: 

⁴Each manufacturer must furnish a report to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety

I. Identify the Recalled Items of Equipment

2. Identify the Items of Equipment Involved in this Recall, for each make and model or applicable item of equipment product line (provide illustrations or photographs as necessary to describe the item of equipment), provide:

Generic name of the item: Transverse Beam Assembly

Make: SAF-Holland **Model:** ADL

Part Number: 90547733 **Size:** For 38.6" Beam Centers

Function: Aids in providing roll resistance of drive axle suspension system

Other information which characterizes/distinguishes the items of equipment to be recalled:

Generic name of the item: Transverse Beam Assembly

Make: SAF-Holland **Model:** ADL

Part Number: 90547813 **Size:** For 38.9" Beam Centers

Function: Aids in providing roll resistance of drive axle suspension system

Other information which characterizes/distinguishes the items of equipment to be recalled:

Generic name of the item: Transverse Beam Assembly

Make: SAF-Holland **Model:** ADLSD

Part Number: 90548443 **Size:** For 39.6" Beam Centers, Round Plate Version

Function: Aids in providing roll resistance of drive axle suspension system

Other information which characterizes/distinguishes the items of equipment to be recalled:

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Equipment equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Equipment of all Equipment manufactured during that time period.

100% of the production of ADL Series during the period will be inspected and we expect less than 6% will prove to be defective.

II. Identifying the Recall Population

3. Furnish the total number of items of equipment recalled potentially containing the defect or noncompliance.

Part Number	Year	Number of Items Potentially Involved
90547733	2007	946
90547813	2007	1,102
90548443	2007	17

Total Number Potentially Affected by the Recall:

2,065

4. Furnish the approximate percentage of the total number of items of equipment estimated to actually contain the defect or noncompliance:

Less than 6%

Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled items of equipment:

As can be seen from the chronological summary in section IV, we received complaints from two separate body builders of failing transverse beams in their manufacturing facility. The body builders along with the chassis manufacturer performed 100% visual inspection of their inventory and did not find any additional defective material. It would later be determined that the units in question were produced by SAF-Holland in August 2007. The transverse beams shipped to the chassis manufacturer have an identification tag that identifies the part number and the month it was manufactured. At this point it was thought that we had an isolated incident of two defective parts being produced.

A third body builder contacted SAF-Holland in February 2008 with a complaint of a failing transverse beam. It was determined that the failed unit was produced by SAF-Holland in September 2007. SAF-Holland personally inspected approximately 387 of the chassis and finished motor homes at this body builder and identified 20 additional units (5.4% of population inspected) that may have contained the defect. It was determined that the majority of these units were built by SAF-Holland in August 2007 but two were built by SAF-Holland in July 2007. The majority of transverse beams inspected were built by SAF-Holland in August and September of 2007.

SAF-Holland in their root cause analysis also found that starting on July 9, 2007 several new operators were assigned to the weld cell that manufactures the ADL transverse beams. The weld cell can be changed over several times during the week to manufacture one of three different part numbers in question. We believe that one or more operators were not setting the weld cell up properly during their shift. From the population inspected at all body builder we believe that less

than 6% of the transverse beams produced in July, August, and September may actually contain the defect. However, because we cannot narrow down the population further we are recommending inspecting 100% of all units produced by SAF-Holland from July 1, 2007 until we initiated 100% inspection at the weld cell on October 10, 2007. It is important to note that the ADL Series has been in production since May 2002 and since production started we have not had a complaint of a transverse beam failing in the field due to this weld defect

III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

The defect is related to the SAF-Holland ADL/ADLSD suspension products. An example of this product is shown in figure 1. The specific component of this system is the transverse beam. An example of this component is shown in figure 2. The appearance of a normal weld is shown in figure 3. If the defect is present it will have an appearance similar to that in figure 4. The defect may occur on either side of the assembly as shown by arrows in figure 2.

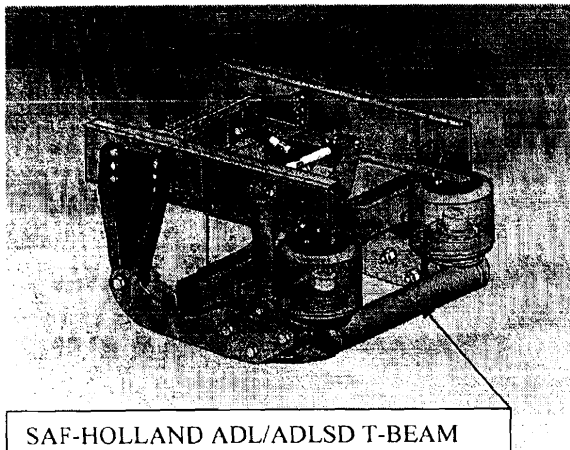


Figure 1 SAF-HOLLAND ADL SUSPENSION

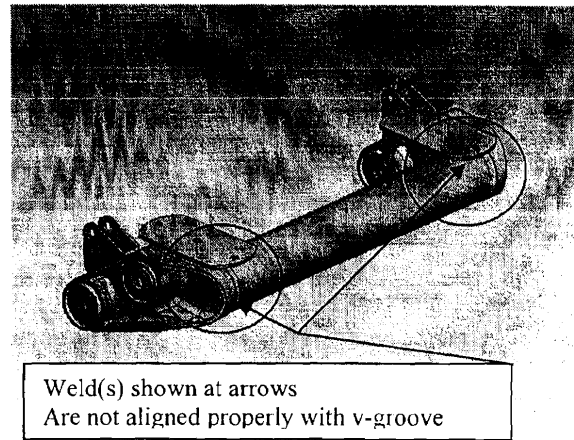


Figure 2 SAF-HOLLAND ADL T-BEAM

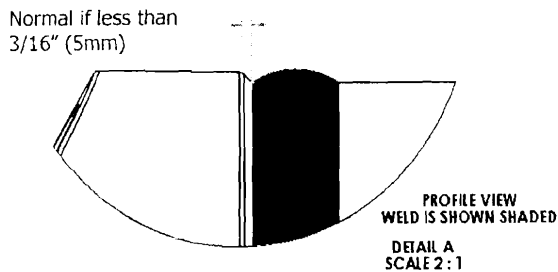


Figure 3 NORMAL WELD CONDITION

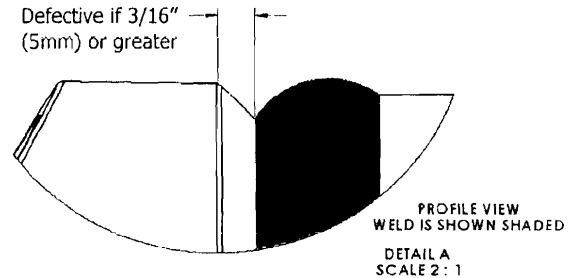


Figure 4 DEFECTIVE WELD CONDITION

Describe the cause(s) of the defect or noncompliance condition.

An undetermined percentage of transverse beams we believe less than 6% have a weld that was not located correctly. Operator did not verify set-up when changing part numbers and/or operator did not re-verify torch after a loose clamp interfered with torch alignment on the fixed side of the fixture.

Describe the consequence(s) of the defect or noncompliance condition.

If the weld fails in the field, vehicle stability while cornering could be affected resulting in loss of vehicle control. In addition, the transverse beam could drop to the ground causing sparks that could cause a fire hazard.

Identify any warning which can (a) precede or (b) occur.

A popping noise has been reported when the weld breaks.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.

Not applicable

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

Not applicable

IV. Provide the Chronology in Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

Date	Event
10-10-07	National RV reports T-beam failure in assembly with photographs, VIN numbers and product date code.
10-10-07	100% visual inspection at SAF-Holland Muskegon. No defects found
10-11-07	Review photos which show weld mis-location
10-12-07	100% visual inspection at Freightliner Custom Chassis, National RV. No defects found.
10-12-07	SAF-Holland CAR 30644 initiated, process inspection initiated
10-13-07	Met with weld operators, supervisors to review issue and discuss potential causes.
10-16-07	RGA 60032377 for National RV Return of failed T-beam.
10-19-07	Results of current production t-beam weld condition reveal process is good.

11-13-07	National RV t-beam received. Visual inspections performed.
11-26-07	Tiffin reports T-beam failure in assembly with photographs, VIN numbers
12-3-07	Team ran through vehicle safety recall determination and implementation process and determines that defect was easily identifiable and its functional response was such that it would be detected before product would leave the final assembly process and as such does not justify a recall action.
12-4-07	Reviewed returned sample from National RV. Tested abnormal tube length theory and reviewed weld profile. Tube length does not pan out. Weld profile sets standard for visual classification of defect.
2-9-08	Winnebago reports T-beam failure in assembly with photographs, VIN numbers and product date code.
2-11-08	SAF-Holland service representative visits Winnebago to inspect failed unit.
2-14-08	Continued inspections of remainder of installed suspensions at Winnebago. Collecting VIN and date code information.
2-20-08	Second meeting at SAF-Holland on weld process held to review proposals on preventing mis-location of weld.
2-25-08	SAF-Holland personnel completed Winnebago inspections which identified 20 additional units with suspicion of defects. RGA 60033420 written to return suspect units for further definition of defect.
2-27-08	Weld analysis of a set of returned transverse beams from Winnebago.
3-3-08	Letter written to Freightliner Custom Chassis (FCCC) reporting, "So far our findings on these "suspect" units do not show reason to be concerned about their integrity based on examination of the welds and comparison against known weld standards." Commitments made to FCCC to durability test samples.
3-10-08	Test request initiated in SAF-Holland lab. Multiple samples scheduled for evaluation from Winnebago suspect population.
3-28-08	Meeting to review test results. Determination was that defect produces a product that fails to meet durability expectations.

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

The remedy is to visually inspect 100% of the units and replace any product containing the visual defect. The difference between the recall condition and the remedy is the recall condition is not welded per the engineering drawing.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

The remedy component is welded per engineering drawing.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

Beginning on October 10, 2007 100% inspection of all production parts was implemented.

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

Date	Action
April 4, 2008	Notification to NHTSA
April 7, 2008	OEM Notification (via telephone)
May 9, 2008	Complete inspection instructions, repair procedure, and notification letters.
May 30, 2008	OEM Dealers mailing of notification of recall and repair procedures.
May 30, 2008	End User mailing of notification of recall and repair procedures.
May 30, 2008	Replacement kits available for shipment from SAF-Holland.

VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. *A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) or by E-Mail (RMD.ODI@dot.gov) for review prior to mailing.*

Note: These documents are to be submitted separately from those provided in accordance with Part 579.5 requirements.

See attached letter to Freightliner Custom Chassis dated March 3, 2008. We are also providing our draft letter of notification we will be sending out to the purchasers of ADL Series Suspensions in the target date rage.



Mr. David Hoover
 Freightliner Custom Chassis
 552 Hyatt Street
 Gaffney, SC 29341

SAF-HOLLAND USA, Inc.
 1950 Industrial Blvd.
 P.O. Box 425
 Muskegon, MI 49443-0425
 TEL: 231.773.3271
 FAX: 231.777.2515
 www.safholland.com

March 3, 2008

Dear David:

Since the discovery of the defect in our ADL transverse beam we have been researching the cause and looking for ways to improve the process to prevent its re-occurrence. We have assembled a discovery team with members from cross functional departments to investigate this and communicate our findings to you. Our quality department is using the corrective action report (CAR) process to communicate the findings. Additionally an oversight team from the managerial level is acting to process the findings and guide this situation to a conclusion we can all be comfortable with.

The following is a summary of each incident and the actions and containment results.

Incident	Action Taken	Items Found
National RV 8-30-2007 1 unit reported damaged during coach build process	National stock check 100% at time of incidence FCCC Gaffney/York Stock check 100% at time of incidence SAF-Holland Stock check 100% at time of incidence – 100% visual inspection initiated ongoing – CAR 30644 Initiated	1 – Original failed unit. No others reported
Tiffin 9-7-2007 1 unit reported damaged during coach build process	Tiffin stock check 100% at time of incidence SAF-Holland holds team meeting for recall determination – team judgment is that no recall is justified at this time.	1 – Original failed unit. No others reported
Winnebago 2-9-2008 1 unit reported damaged during coach build process	Winnebago stock check 100% - 4 returned: 3 suspect, 1 original failed unit. 2 – Suspect cut/etch performed, 1 remaining suspect held for possible load evaluation.	1 – Original failed unit, 20 suspect under review

These efforts have also been the basis for the establishment of a suspect timeframe based on markings on the product over the range from July 2007 through September 2007. The only confirmed defects to date have been those that actually resulted as incidents in the table above (and were self detecting by nature of the events in the coach build process that caused them to be detected). All other suspect items were isolated in containment efforts based on the detection criteria established and will be evaluated for whether they actually contain the defect. Most of these suspect items are still in the evaluation phase.



In an effort to determine whether there are less identifiable levels of this defect we have focused on “suspect” units discovered during the containment part of our investigations. So far our findings on these “suspect” units do not show reason to be concerned about their integrity based on examination of the welds and comparison against known weld standards. We will continue to perform similar inspections with other “suspect” samples found as they are received. We are readying a test bed to also perform durability and/or load testing on “suspect” product as well to further strengthen these conclusions.

For the present time we understand that your customers are seeking reassurance about undetected or marginal conditions in their finished product. Please let this letter serve to communicate that while investigations are still under way there is no reason to question the integrity of product that has been determined to be free of the obvious defect during the containment efforts.

We understand that the defect in the ADL transverse beams in your customer’s assembly operations has given cause for alarm for your customers. It is also distressing for your company and equally so for ours. Providing a robust product is our goal and incidents like this are a blow against that aim that we take seriously. We will be in constant contact with you as our investigations continue.

Regards,

Collin Dinsmoor
Director of Applications Engineering
Suspension Systems (PVS)

Cc/Review:

Mark Molitor – Vice President of Engineering (PVS)
John Wieringa – VP Quality and Environmental Management Systems
Deb Hicks – Muskegon Facility Quality Manager
John Johnson – Customer Service Manager
Jim Hugye - Director of Reliability & Risk Management
Ron Froese - Director, Powered Vehicle OEM Sales
Kevin Motz - OEM Account Manager

D R A F T



Addressee Field
Addressee Field
Addressee Field
Addressee Field
Addressee Field

SAF-HOLLAND USA, Inc.
1950 Industrial Blvd.
P.O. Box 425
Muskegon, MI 49443-0425
TEL: 231.773.3271
FAX: 231.777.2515
www.safholland.com

April XX, 2008

Attention: Contact Name

RE: Notice of Safety Recall

This is to inform you that on April 4, 2008; SAF-Holland Inc. notified NHTSA that it would institute a recall on our ADL Series suspensions.

This recall will affect ADL suspensions shipped to your vehicle manufacturing facilities between July 1, 2007 and October 9, 2007.

Description of Defect:

An undetermined percentage of ADL suspension transverse beams, we believe less than 6%, have a weld that was not located correctly. If the weld fails in the field, vehicle stability while cornering could be affected resulting in loss of vehicle control. In addition, the transverse beam could drop to the ground causing sparks that could cause a fire hazard.

Proactive Approach by SAF-Holland:

To date we have **not** had any ADL transverse beam welds fracture in the field as a result of this defect. As of October 10, 2007, SAF-Holland initiated 100% inspection of its ADL transverse beams and believes only a very small percentage (less than 6%) of beams produced within the suspect time period contain the weld defect.

To correct this potential weld defect, customers will be instructed to contact their OEM Dealer or Approved OEM Service Center to arrange for a visual inspection of the ADL transverse beam. This visual inspection should take no longer than 15 minutes to perform. If a weld defect is identified, SAF-Holland will provide a service replacement kit that contains a new transverse beam, all necessary installation hardware, and beam replacement instructions at no charge.

You are required by NHTSA regulations to file a Part 573 Vehicle Safety Defect Report within 5 days of receipt of this notification. Enclosed is a copy of SAF-Holland's Part 573 Equipment Safety Recall Report that was sent to NHTSA on April 4, 2008. Also enclosed is a summary list of the ADL suspensions affected by this recall to assist you in preparing your report. A more detailed list of the affected products you purchased will be forwarded to you in the next few days. Although NHTSA

D R A F T

regulations hold the vehicle manufacturer responsible for conducting a recall of its vehicles, they do allow for the original equipment manufacturer, SAF-Holland in this case, to conduct the recall and provide the quarterly reports to NHTSA. SAF-Holland will assist or conduct the recall for you to the fullest extent allowed by law or regulation per your discretion.

SAF-Holland apologizes for any inconvenience this recall action causes you and your vehicle customers. Please be assured that SAF-Holland's primary concern is to provide the highest quality products for the transportation industry resulting in the upmost safety for our customers and end users. If you require additional information or assistance in completing your Part 573 report, please contact me directly at (231)777-4369.

Sincerely,

John Johnson
Director, Customer Service
SAF-Holland