

**PART 573 Defect and Noncompliance Report<sup>3</sup>**

On July 17, 2014, Utility Trailer Manufacturing Co. learned that a condition that may relate to motor vehicle safety may exist in the motor vehicles listed below. Utility 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: **July 17, 2014**

Furnish the manufacturer's identification code for this recall (if applicable): **SB-07-011 / 370258**

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

**UTILITY TRAILER MANUFACTURING COMPANY**  
**17295 E. RAILROAD STREET**  
**CITY OF INDUSTRY, CALIFORNIA 91748**

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

**Sal Molina, Manager**  
**Field Service Department**  
**Utility Trailer Manufacturing Company**

Telephone Number: **626-854-7215**

Fax Number: **626-965-5660**

Name and Title of Person who prepared this report.

**Blas Gonzalez**  
**Regional Field Service Manager**  
**Field Service Department**

Signed: \_\_\_\_\_

**I. Identify the Vehicle Models Involved in the Recall**

<sup>3</sup> Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition, which relates to motor vehicle safety.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions please consult the complete Part 573 or contact Mr. Jon White at (202) 366-5227 or by FAX at (202) 366-7882.

2. **Identify the Vehicles Involved in the Recall, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle, provide:**

Make(s): UTILITY Model Years Involved: 2012-2014 Model(s): as follows: Vans  
(Single axle, dual axle and tri-axle, commercial, semi refrigerated vans and dry freight vans)

Production Dates: Beginning: April 2011 Ending: May 2013

VIN Range: Beginning: 1UYVS128XCM289301 Ending: 1UYVS1288EM880004

Descriptive information which characterizes/distinguishes the recall vehicles from those model vehicles not included in the recall:

**The recall includes all Utility Dry Vans manufactured between April 2012 and April 2013 and all Refrigerated Vans manufactured between April 2011 and May 2013 that contain a pintle-hook safety-chain loop. It does not include any flatbed trailers, or any Dry Vans or Refrigerated Vans manufactured outside of the period specified in the previous sentence. The recalled vehicles contain a pintle-hook safety-chain loop manufactured from material from a different supplier than that used previously and were produced before Utility clarified the loop-metal specification and began inspecting the loops using the procedure described in its Service Bulletin SB-07-011.**

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 involved Widgets equipped with certain items of equipment from January 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period. 3.35% %

**II. Identify the Recall Population**

3. **Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.**

Model	Year	Number of Vehicles Potentially Involved
<u>VS1DC</u>	<u>2013</u>	<u>81</u>
<u>VS1DC</u>	<u>2014</u>	<u>123</u>
<u>VS1RA</u>	<u>2012</u>	<u>8</u>
<u>VS1RA</u>	<u>2013</u>	<u>283</u>
<u>VS1RA</u>	<u>2014</u>	<u>37</u>
<u>VS2DX</u>	<u>2013</u>	<u>593</u>
<u>VS2DX</u>	<u>2014</u>	<u>270</u>
<u>VS2RA</u>	<u>2013</u>	<u>537</u>
<u>VS2RA</u>	<u>2014</u>	<u>37</u>
<u>VS3DX</u>	<u>2013</u>	<u>23</u>
<u>VS3DX</u>	<u>2014</u>	<u>44</u>
<u>VS3RA</u>	<u>2013</u>	<u>32</u>
<u>VS3RA</u>	<u>2014</u>	<u>30</u>

Total Number Potentially Affected by the Recall: 2,098

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect of noncompliance: Based on the inspections performed in the field, 2%

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 vehicles:

Utility conducted a record search of all Dry Vans manufactured with a pintle-hook safety-chain loop between April 2012 and April 2013, and all Refrigerated Vans manufactured with a pintle-hook safety-chain loop between April 2011 and May 2013. The beginning date for each model was based on the time when Utility began using a different supplier for the loop material. The ending date represents the time when Utility dropped on its factory's concrete floor the pintle-hook-tube subassembly with a pintle-hook safety-chain loop welded to it, causing a crack in the pintle-hook safety-chain loop. At that time, Utility clarified the loop-metal specification for all pintle-hook safety-chain loops installed. Since that time, Utility has inspected every trailer manufactured with a pintle-hook safety-chain loop using the procedure contained in its Service Bulletin SB-07-011. No trailer has failed this inspection.

### III. Describe the Defect or Non Compliance

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

Utility does not currently believe its trailers are either defective or non-compliant. In April 2013, a pintle-hook-tube subassembly with a pintle-hook safety-chain loop welded to it fell from a forklift onto the factory's concrete floor. The fall caused the pintle-hook safety-chain loop to crack. Because Utility would have expected the loop to bend, not crack, it began a two-part investigation: (1) inspections of pintle-hook safety-chain loops; (2) metallurgical testing to determine the brittleness of the metal used in forming the pintle-hook safety-chain loop.

The methodology, findings, and conclusion of the two-part investigations are:

(1) Each inspected loop was subjected to a dynamic-load and a static-load impact test to simulate a trailer separation scenario. As a result, Utility identified 8 loops with cracks in the pintle-hook safety-chain loop from a dynamic-load crash-style impact, all occurring during the dynamic-load impact. In the static-load test, the loop material bent at high force exceeding design specifications but did not crack, suggesting that the loop material would perform as intended, to maneuver a towed trailer's dolly and trailer to a complete stop. .

(2) The metallurgical test consisted of chemical analysis, tensile testing, hardness testing, and Charpy impact. Utility sought to determine whether the metal used in the pintle-hook safety-chain loop met Utility's expected standards for carbon steel. The lab determined that the metal used in the pintle-hook safety-chain loop met the brittleness and other requirements for that loop, although the metal did contain certain trace elements. Based on those findings, Utility determined that there is no defect or noncompliance in the metal, but it clarified the specification for the raw material it uses to manufacture the pintle-hook safety-chain loop.

Also, see the attached bulletins and notices:

- Customer Notification, SB-07-011: Pintle Hook LOOP for the Secondary (Safety) Chain – INSPECTION
- Dealer Notification, SB-07-011: Pintle Hook LOOP for the Secondary (Safety) Chain – INSPECTION

- Describe the cause(s) of the defect:

As noted earlier, Utility does not believe there is a defect associated with Utility's trailers. Although the pintle-hook safety-chain loop can crack from sudden impact, such as being dropped onto a concrete floor, Utility would have expected that the material bend rather than crack when subjected to the impact. Utility therefore decided to be proactive and to replace the loop if it were to crack during the inspection.

- Describe the consequence(s) of the defect or noncompliance condition:

As noted earlier, Utility does not believe there is a defect or noncompliance associated with Utility's trailers. If the pintle-hook (primary connection) were to disengage between the towing trailer and the towed trailer's dolly, the pintle-hook safety-chain loop would serve as the primary connection. At that time, the driver would immediately see or feel the towed trailer misalign. If the loop were to break off and disconnect completely, the air lines and electrical lines would detach, and the towed trailer's brakes would apply.

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

A trailer equipped with a pintle-hooks assembly should be inspected for damage during the pre-trip inspection; at that time, the driver is required to ensure that the pintle-hook and dolly hitch are correctly connected with the (safety) chain(s) through the pintle-hook safety-chain loop. This may serve as the primary warning. Over the road, the type of warning that may occur is unknown.

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

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

N/A

#### 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 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.

Utility does not believe there is a defect associated with its trailers. There have been no reports, accidents, injuries, fatalities or warranty claims made; for more background, see the above and #7.

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.

**Utility does not believe there is any noncompliance associated with Utility's trailers.**

**Background:**

**In April 2013, a pintle-hook-tube subassembly with a pintle-hook safety-chain loop welded to it fell from a forklift onto the factory's concrete floor. The fall caused the pintle-hook safety-chain loop to crack. Utility would have expected the loop to bend, not crack, so it began a two-part investigation: (1) inspections of pintle-hook safety-chain loops; (2) metallurgical testing to determine the brittleness of the metal used in forming the pintle-hook safety-chain loop. Later, Utility conducted a Research & Development test to answer questions from NHTSA, the Office of Defects Investigation.**

**1. Inspection of pintle-hook safety-chain loops.**

**a. Identification: Inspection of pintle-hook safety-chain loops**

**b. Start date: April 2013**

**c. End date: On-going**

**d. Summary of subject and objective: Through the inspection, Utility is determining whether pintle-hook safety-chain loops manufactured by Utility after a change in supplier are more likely to crack when stress is applied to the loop. The inspection process, which is outlined in Service Bulletin SB-07-011, is authorized on all pintle-hook safety-chain loops installed on dry vans built between April 2012 – 2013, and refrigerated vans built between April 2011 and May 2013. Additionally, as a quality-control procedure, Utility uses the inspection process described in the Service Bulletin. Utility has used that process to inspect every trailer it has manufactured since April 2013 and plans to continue that procedure to every trailer it manufactures that contains a pintle-hook safety-chain loop.**

**e. Group/supplier responsible: Utility's engineering and service departments designed the action. Utility factory personnel conduct the inspection on all trailers following manufacture. Utility's independent dealers conduct the inspection on trailers in the field.**

**f. Summary of findings and conclusions: The dealer-conducted inspections identified only 8 trailers with a crack in the pintle-hook safety-chain loop. Utility's conclusion is that the cracks resulted either from a material anomaly or from a manufacturing anomaly and is not a defect in either the material or the production process. Every one of those pintle-hook safety-chain loops has been replaced. Since April 2013, Utility has conducted inspections in its factory of every pintle-hook safety-chain loop installed on a trailer. From April 2013 through July 2014, Utility has manufactured 3,779 trailers with a pintle-hook safety-chain loop and has inspected all 3,779 of them. The factory-conducted inspections undertaken since April 2013 have not revealed any cracks in the pintle-hook safety-chain loops manufactured by Utility.**

2. Metallurgical testing.

a. Identification: Metallurgical testing

b. Start date: April 2013

c. End date: April 2013

d. Summary of subject and objective: Utility retained Element Materials Technology to conduct metallurgical tests of the material used in its pintle-hook safety-chain loops. These tests consisted of chemical analysis, tensile testing, hardness testing, and Charpy impact. Through these tests, Utility sought to determine whether the metal used in formulating the pintle-hook safety-chain loops met Utility's expected standards for carbon steel.

e. Group/supplier responsible: Element Materials Technology, Huntington Beach, California.

f. Summary of findings and conclusions: Element Materials determined that the metal used in the pintle-hook safety-chain loop met the brittleness and other requirements that Utility preferred for its pintle-hook safety-chain loop, although the metal did contain certain trace elements. Because of those findings, Utility clarified the specification for the raw material it uses to manufacture the pintle-hook safety-chain loop.

Documents: See attached Report of Element Materials Technology, dated April 19, 2013.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect of non-compliance. Clearly describe the difference between the recall condition and the remedy.

Utility does not believe there is any defect or noncompliance associated with Utility's trailers. Nonetheless, Utility has implemented the following procedure to inspect and test the pintle-hook safety-chain loops manufactured during the relevant period, and to address any instances of cracking revealed during the inspection and tests:

- a. Utility's remedy is to (1) impact test every pintle-hook safety-chain loop and replace it if the slightest crack is created by the damage, (2) as a precautionary measure, Utility clarified the material specification for the metal used in formulating the pintle-hook safety-chain loop, and (3) reinforced its welding guidelines.
- b. Refer to the attached copy of the Dealer Notification, SB-07-011.

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

**There should be no difference between the recalled pintle-hook safety-chain loop and a remedy loop installed on the subassembly. The remedy loop will meet Utility's clarified specifications for the raw material bar: 1.25" diameter, hot rolled, ASTM A36 (only) Steel; 50 KSI maximum yield strength; 23% elongation in 2" minimum; and the remedy loop will comply with all relevant welding guidelines.**

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.

**No Dry vans were manufactured after April 2013 and no Refrigerated vans were manufactured after May 2013 with unspecified raw material to formulate the pintle-hook safety-chain loop. The specified material used in production is the same material used in the recall.**

#### **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.

**Utility intends to send a notification to customers and another notification to dealers in August 2014. Utility continues to monitor the completion of the initial service directive, and to date has recorded 20% completion of the affected trailers. Utility intends to continue monitoring until all identified trailers have received the inspection and will voluntarily provide six quarterly reports of recall completion, adhering to Section Part 573.7.**

#### **VII. Furnish Recall Communications**

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect of 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 document should be submitted to this office by Fax (202-366-7882) for review prior to mailing.*

Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.