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Safety Defect and Noncompliance Report Guide for Equipment

PART 573 Defect and Noncompliance Report[1]

On April 12, 2012 Specialty Manufacturing, Inc. decided that a non-compliance with Federal Motor Vehicle Safety Standard No. FMVSS 217 exists in the 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 18, 2012*

Furnish the manufacturer's identification code for this recall (if applicable): *N/A*

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.**

   Specialty Manufacturing, Inc.
   10200 Pineville Road
   Pineville, NC 28134

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

Joe Uebbing, Chief Executive Officer

Telephone Number: *704.889.7518* **Fax No.:** *704.889.2760*

Name and Title of Person who prepared this report.

Rusty Cloninger, Director - Supply Chain *704-889-7518, ext. 3028*

Eric L. Stone *301-424-0270*
Law Office of Eric Stone, LLC
14524 Kings Grant Street
North Potomac, MD 20878

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: *ProLo Roof Hatch*

Make: *Specialty Manufacturing, Inc.* **Model**: *Refer to Section II below*

Part Number: *Refer to Section II below* **Size**: *N/A*

Function: *Bus roof escape hatch*

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

Refer to Section III below

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 Widgets equipped with certain items of equipment from January 1, 1996, through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.

II. Identifying the Recall Population

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

Model/Part No	Description	Number of Items Potentially Involved
9215-0200	PRO-LO,STATIC VT,WHITE,116"R,	16
9215-0300	PRO-LO,STATIC VT,WHITE,200R,	27
9215-0300C	PRO-LO,STATIC VT,WHITE,200R,C2	17
9217-0200	PRO-LO,STAT VT,WHITE,116"R,F/E	10
9245-0200	PRO-LO,NO VENT,WHITE, 92"R	6,255
9245-0201	PRO-LO,NO VT WHT NO ALARM 92"R	263
9245-0203	PRO-LO,NO VT,WHT, 92",VLK,ALM	4
9245-0220	PRO-LO,NO VENT,WHITE, 92"R	2,078
9245-0230	PRO-LO,NO VENT,WHITE, 92"R,ALM	707
9245-0233	PRO-LO,NO VT,WHT, 92",VLK,ALM	77
9245-0300	PRO-LO,NO VENT,WHITE,200"R,	19
9245-0300C	PRO-LO,NO VENT,WHITE,200"R,C2	1,385
9245-0303C	PRO-LO,NO VENT,WHITE,200"R,VLCK,C2	44
9245-0310	PROLO-WHT,NO VT,200"R,T.TOP	120
9245-0320	PRO-LO,NO VENT,WHITE,200"R,	490
9245-0501	PROLO-WHT,250"R,NO ALM,NO VENT	86
9245-0700	PROLO-HAT,WHT,FLAT R,W/ALM	34
9245-G200	PRO-LO,NO VENT,GRAY,92"R	1,374
9245-G310	PRO-LO,NO VT,WHT/GRY,200"R	214
9245-G512	PROLO-NO VT,WHT/GRY,250R,SP TR	5
9245-G514	PROLO-NO VT,WHT/GRY,250R,NO TR	154
9245-G711	PROLO-WHT/GRY,FLAT,NO ALM,SPEC	2
9245-L203	PRO-LO,NO VT,LT GRAY, 92",VLK,ALM	0
9247-0200	PRO-LO,NO VENT,WHT, 92"R,FR/EN	319
9247-0201	PRO-LO,NO VT WHT NO ALARM 92"R,F/E	6
9247-0203	PRO-LO,NO VT,WHT, 92",VLK,F/E	12
9247-0220	PRO-LO,NO VENT,WHITE, 92"R, FRE/ENG	6
9247-0230	PRO-LO,NO VENT,WHITE, 92"R, FRE/ENG	100
9247-0233	PRO-LO,NO VT,WHT, 92",VLK,ALM, FR/EN	90
9247-0300	PRO-LO,NO VENT,WHT,200R,F/E	10
9247-0300C	PRO-LO,NO VENT,WHT,200R,C2,F/E	93
9247-0320	PRO-LO,NO VENT,WHITE,200"R, FRE/ENG	1
9247-G200	PRO-LO,NO VENT,GRAY,92"R,FR/EN	113
9250-0700	PRO-LO,TRANSIT,WHITE,FLAT	48

Total Number Potentially Affected by the Recall: 15,462

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

To expedite the identification of suspect hatches in field inspections, a "Pop-Up" test was developed. This test involves cycling the hatch open and closed three times, then opening the hatch handle. If the hatch support plate "pops out" of the receiver, there is a 100% chance that the hatch will pass FMVSS 217. Failure of the support plate to "pop out" does not necessarily mean the hatch will fail FMVSS 217, but rather that a force gauge test would be required to validate compliance to FMVSS 217.

*Total population of hatches inspected to date**	*2,636*
*Total Pop-Up Tested***	*2,195*
Total passing Pop-Up Test	*1,820*
Total failing Pop-Up Test	*375 (17.1%)*
Total Force Gauge Tested	*441*
Total passing Force Gauge Test	*369*
Total failing Force Gauge Test	*72 (16.3%)*

** 17.0% of the* **Total Number Potentially Affected by the Recall**

*** Of the units that failed the pop-out test, some were remedied without performing the force gauge test for the sake of expediency in field inspections.*

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:

Of the two mating components involved in the noncompliance issue, the 008956 Nylon Receiver is an injection-molded part (shown in Section III, 5 below). This part was purchased from a single supplier from September 2008 until April 2011, at which time the part was sourced to a new supplier, Syracuse Plastics. This supplier change combined with continued wear of the tool resulted in undetected changes in the slot dimensions. The last shipment of 456 parts from the previous supplier was received on April 11, 2011 and part of this last shipment was mixed with the first shipment from the new supplier. While the earliest hatch build date containing this noncompliance is May 21, 2011, all hatches built from April 2011 until March 25, 2012 are suspect for this condition.

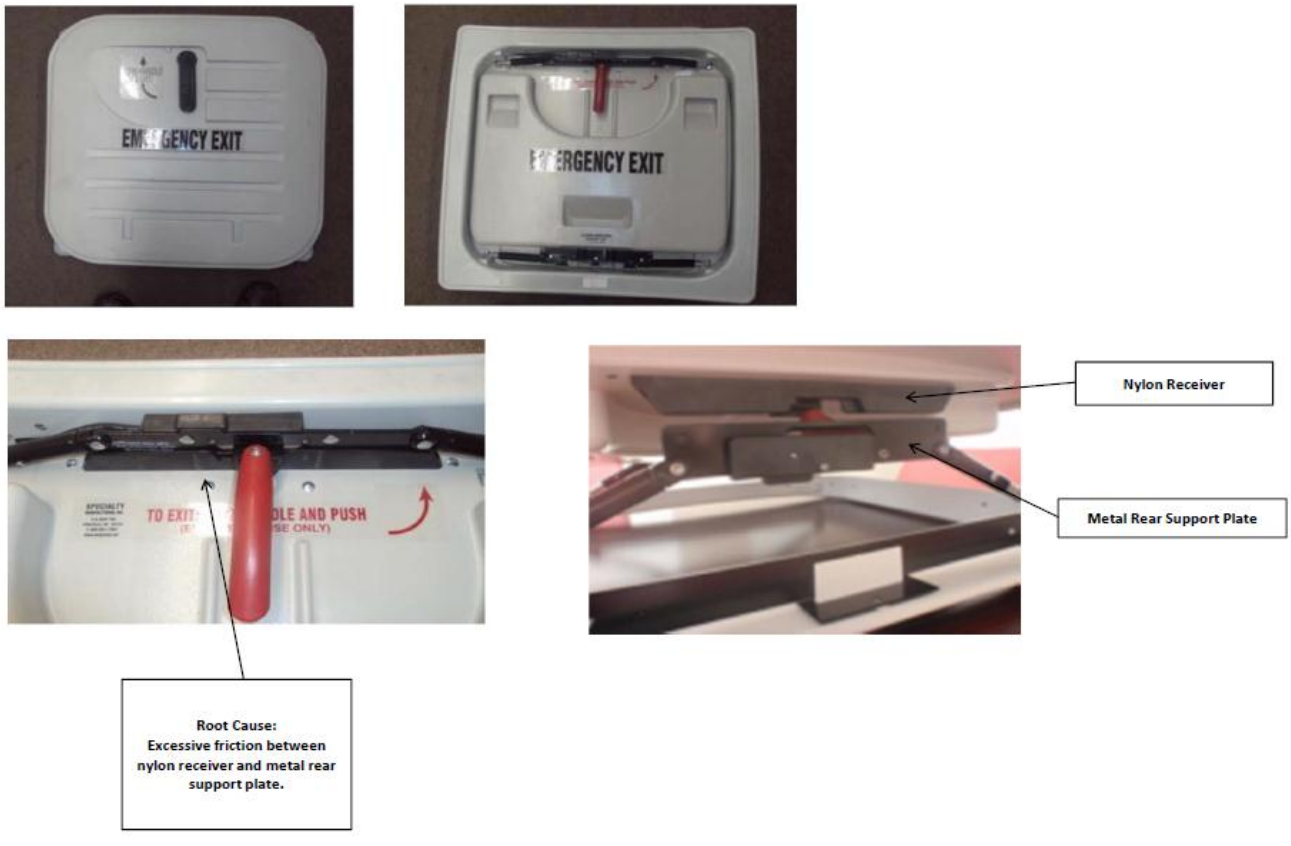
Testing of 374 hatches in the field containing 008956 Nylon Receivers manufactured by a previous supplier confirms that these hatches function properly. This testing confirmed our focus on the units manufactured starting May 21, 2011.

The 008956 Nylon Receiver is used in all SMI ProLo hatches. Therefore, all ProLo hatches sold during the suspect period (April 2011 to March 25, 2012) comprise the suspect population.

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.

Increased friction between the 009327 Rear Plate Assembly and the 008956 Nylon Receiver results in an opening force on ProLo roof hatches that may exceed FMVSS 217 standards.



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

Continued wear of the tools over time for both the 008956 Nylon Receiver and the 009327 Rear Plate Assembly produced by SMI, combined with a change in suppliers for the 008956 Nylon Rear Pop-Up Support.

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

The force required to open the roof hatch may exceed the FMVSS 217-specified 40-pound maximum by forces ranging from 1 to 25 pounds with the average being 7 pounds.

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

There are no warnings for this issue. The condition would manifest itself only when the roof hatch is opened as, for example, during daily driver inspections and the person

opening the hatch perceived that greater than normal force was required.

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

One of the hinge assembly components, the 008956 Nylon Receiver, was purchased from a new supplier between May 5, 2011 and March 25, 2012.

Syracuse Plastics of NC, Inc.
100 Falcone Parkway
Cary, NC 27511

NOTE: A consolidation of SMI's plastic injection molding sources was in process at the time this issue surfaced. As of April 13, 2012, the 008956 parts are being manufactured by the supplier listed below. All of the 008956 parts are now being manufactured to dimensions that will allow the ProLo hatch to consistently meet the FMVSS 217 requirement for opening force.

B&B Tool and Molding
624 South Jefferson
Muncie, IN 47305

Kurt Jones, President

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

Tom Falcone, President & CEO

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.

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.

Summary of Events:

03/19/12 *Initial report from Thomas Built Bus (TBB) that a ProLo hatch failed the 40 pound FMVSS 217 opening force test.*

03/20/12 *Initial analysis of failure modes by SMI indicated that the 008956 Nylon Receiver was not to dimensional specification. In addition, SMI identified a burr on the 009330 metal plate (part of 009327Rear Plate Assembly that fits into the 008956 support).*

03/21/12 *SMI Implemented a containment and rework process for the 009327Rear Plate Assembly*

03/23/12 *SMI personnel visited TBB to review the test and inspection process.*

03/25/12 *SMI developed and implemented a rework process for the 008956 Nylon Receiver to open the slot dimensions to relieve the friction.*

03/26/12 – 03/29/12 *SMI refined the testing procedure, conducted field testing of hatches and gathered data to determine the extent of the issue.*

03/30/12 *SMI dispatched a team to Thomas Built Bus to inspect and/or replace 008956 Nylon Rear Pop-Up Supports on all ProLo hatches on their lot, on their assembly lines, and in their stock.*

04/10/12 *SMI notified Blue Bird of the issue with the increased opening force on ProLo roof hatches.*

04/12/12 *SMI decided to notify NHTSA and to take further remedial action.*

04/11/12 *SMI dispatched a team to Blue Bird to inspect and/or replace 008956 Nylon Receiver on all ProLo hatches on their lot, on their assembly lines, and in their stock.*

04/12/12 *SMI determined there was sufficient evidence to report the issue to NHTSA.*

04/14/12 *First production of 008956 Nylon Receiver at B&B Tool and Molding.*

04/16/12 *SMI contacted Kelly Schuler at NHTSA.*

04/16/12 *SMI notified IC/Navistar of the issue with the increased opening force on ProLo roof hatches.*

04/16/12 *First receipt at SMI of 008956 Nylon Receiver from B&B Tool and Molding.*

04/17/12 *SMI dispatched a team to IC/Navistar to inspect and/or replace 008956 Nylon Receiver on all ProLo hatches on their lot, on their assembly lines, and in their stock.*

Overall Information:

- *Number of Customer Calls:* *1*
- *Number of Accidents:* *0*
- *Number of Injuries:* *0*
- *Number of Fatalities:* *0*

Warranty Information:

- *There have been no warranty returns related to this issue.*

Overall Values:

- *15,462*

Basic Percentage:

- *17% or less*

See the attached ProLo Hatch Test Data Summary.pdf

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.

Replacement of the 008956 Nylon Receiver resolves interference issues.

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

The two walls of the remedy 008956 Nylon Receiver are parallel on the remedy component producing a minimum slot width of 0.200". (The slot width on the recalled component narrows toward the center of the part and the part may be bowed along the length, exacerbating the interference with the 009327 Rear Plate Assembly.)

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.

All products assembled after March 25, 2012 contained new or reworked 008956 Nylon Rear Pop-Up Supports that allow the hatch to meet FMVSS217 specifications for opening force.

This is the same remedy as applied in the field.

Although this remedy eliminates interference, the actual root cause has yet to be determined.

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.

TBD

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) for review prior to mailing.***

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