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14V-035
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February 3, 2014

Michael H. Streater
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VIA E-MAIL

Cynthia Glass
General Engineer, RMD
US DOT/NHTSA
1200 New Jersey Ave, SE
Washington DC 20590

Re: Schwing America, Inc./Sure Power, Inc. Recall (EQ14-002)

Dear Ms. Glass:

I enclose Part 573 Defect and Noncompliance Report submitted by Schwing America, Inc.

Please call me if you have any questions with respect to this.

Very truly yours,

A handwritten signature in blue ink, appearing to read "M. Streater", written over the typed name "Michael H. Streater".

Michael H. Streater

MHS/aw

cc: Glen Grabowski
Brian Hazelton

PART 573 DEFECT AND NONCOMPLIANCE REPORT

SUBMITTED BY SCHWING AMERICA, INC.

January 31, 2014

EQ14-002

This Report serves as Schwing America, Inc.'s initial notification to the U.S. Department of Transportation, National Highway Traffic Safety Administration, that a defect related to motor vehicle safety may exist in a component, manufactured by Sure Power Inc., and installed in certain concrete pump trucks manufactured by Schwing. Based upon information provided by the component supplier, Schwing has determined that this component defect exists in certain of these vehicles as of the present date.

1. Manufacturer's Name/Address:

Schwing America, Inc., 5900 Centerville Road, White Bear Township, MN 55127

2. If this notification concerns a defective or noncompliant component that the manufacturer did not manufacture, identify the component and provide the name, address and phone number of the manufacturer of the component:

The component involved in this recall is a DC to DC converter manufactured by Sure Power Inc., 10955 Southwest Avery Street, Tualatin, Oregon 97062, Phone: 800-845-6269.

3. Name, address, e-mail and phone and fax numbers for the person to whom inquiries about this report should be directed:

Zach Morris, Schwing America, Inc., 5900 Centerville Road, White Bear Township, MN 55127, e-mail: zmorris@schwing.com, phone (651) 429-0999, fax (651) 429-2112.

4. Manufacturer's assigned campaign number (where applicable):

Schwing has not assigned a campaign number to this matter.

5. Identification of the vehicles potentially containing the defect, including a description of the manufacturer's basis for its determination of the recall population:

In December 2013, Schwing received written notification from Sure Power Inc. of a recall with respect to certain models of DC to DC converters. In January 2014, Schwing received an additional notification from Sure Power Inc.

Schwing maintains records of all components installed on its equipment and sold as spare parts. Based upon the information provided by Sure Power Inc., Schwing has determined that it purchased 127 converters from Sure Power Inc. (part numbers 12025C00, 12040C00 and 12040E00) that are the subject of the recall.

Of the 127 converters purchased, nine were installed in new concrete pump trucks (Models S39SX, S43SX, S58SX and S61SX) beginning in January 2012; 18 were in Schwing's inventory and have now been taken out of inventory; and the remaining 100 converters were sold by Schwing as spare parts to owners of concrete pump trucks.

6. Describe how the recall population is different from any similar vehicles not subject to this notification:

Schwing uses DC to DC converters on a limited number of concrete pump trucks requiring conversion from 12 volts to 24 volts. Schwing has identified nine new concrete pump trucks that contain the subject converters; 100 of the subject converters were previously sold to owners of concrete pump trucks as spare parts; and 18 remain in Schwing's inventory. Schwing is in the process of identifying the owners of the 109 concrete pump trucks containing the subject converters.

7. Description of the defect:

According to Sure Power Inc., the specific potting compound used in the subject products for insulation was found to be capable of conducting electricity once exposed to significant thermal energy. Once electrically conductive, the material is capable of self-heating and maintaining temperatures capable of accelerating a thermal incident. Thermal energy can be sourced by various electrical failures, and Sure Power is still investigating whether there are application-specific contributions to the risk of failure. Electrical failures have been traced to water intrusion or solder joint fatigue resulting from ongoing expansion and contraction due to thermal cycling.

8. Describe the safety consequences of the defect:

According to Sure Power Inc., the confirmed incidents to date have demonstrated smoking or flame at the affected part with additional damage limited to adjacent/connected parts such as wire harnesses and cable. No injuries have been recorded to date.

9. Identify any warnings that may precede the defect:

According to Sure Power Inc., the failure mechanism is not detectable and no warning is given prior to thermal failure.

10. For defects, provide a dated, chronological summary of all of the principal events that were the basis for the determination that the defect is related to motor vehicle safety:

Sure Power Inc. has provided the following chronology:

- 2000: The product is introduced to the market by Sure Power Inc.

- 2000 through 2012: Sporadic field returns with reported thermal failure were analyzed and determined to be related to either water intrusion or customer misapplication.
- December 24, 2007: Cooper Industries acquired Sure Power Inc.
- January 2012: Sure Power received information from one bus operator in California (Bus Operator 1) regarding 3 incidents involving one model of the battery equalizer installed in transit buses owned and operated by that bus operator. None of the incidents involved an injury
- January 2012: Sure Power conducted a site visit at the location of Bus Operator 1 and based upon the mounting location and maintenance procedures of the operator determined that the failure was likely due to water intrusion.
- May 2012: Sure Power received information from one bus operator in California (Bus Operator 2) regarding four incidents involving one model of the battery equalizer installed in transit buses owned and operated by that bus operator. None of the incidents involved an injury.
- May through September 2012: Sure Power investigated the four incidents from Bus Operator 2 and concluded they appeared to be a wear out mechanism related to this particular transit bus application.
- November 30, 2012: Eaton acquired Cooper Industries, which included Sure Power, Inc.
- January 10, 2013: Sure Power evaluated three incidents from one bus operator in California (Bus Operator 3) which exhibited the same root cause as Bus Operator 2. None of these incidents involved an injury. Following examination of these three units an additional four functional units with similar age and use history were requested be returned for evaluation. These four units showed varying degrees of degradation at the bus bar solder joints, none of which had progressed to a thermal incident.
- May 29, 2013: Sure Power is notified of an April 14, 2013 incident involving a fire on a transit bus that was parked in a garage and owned by a bus operator in Pennsylvania. The incident did not involve an injury.
- July 2013 – present: Sure Power representatives have been investigating the Pennsylvania incident. The cause of this incident is still under investigation, and it is not yet determined whether this incident is related to the issue addressed by this report.

- August 1, 2013: Sure Power launched an effort to re-evaluate all past returned parts data for the subject products with specific attention given to occurrence and root cause of thermal failure.
 - September 9, 2013: Sure Power decided to notify NHTSA of its decision to undertake a safety recall to replace the subject products in the aftermarket and notify its OEM customers of this decision.
11. Describe the program for remedying the defect, including the plan for reimbursing those owners and purchasers who may have incurred costs to remedy the defect before receiving the manufacturer's notification concerning the defect:

According to notices provided by Sure Power Inc., Sure Power Inc. intends to provide its customers, including Schwing, with new DC to DC converters that do not contain the defect that resulted in the recall. Schwing intends to provide notification to its customers providing the details of the Sure Power Inc. recall, and advising that Schwing will provide new DC to DC converter units to the affected customers after it receives the replacement converters from Sure Power Inc., and that it will reimburse any customers who have replaced the converters before receiving Schwing's notification. That notification letter will be provided to the NHTSA in accordance with the requirements of 49 CFR § 577.5.

12. Provide the estimated dates on which owner and purchaser notifications will be issued and the estimated dates for completion of those notifications:

Schwing believes that it can complete the notification process by March 1, 2013.

SCHWING AMERICA, INC.

By: 
Its: Warranty Administrator