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13E-055
12 Pages
(Amended)

PART 573 AMENDED DEFECT AND NONCOMPLIANCE REPORT

ILJIN Global Co., Ltd.

Date: **October 15, 2013 (Amended November 15, 2013)**.

This report, as amended, serves as ILJIN Global Co., Ltd.'s notification to the U.S. Department of Transportation, National Highway Traffic Safety Administration that a "defect related to motor vehicle safety" exists in certain front wheel bearings.

ILJIN Global Co., Ltd., decided that this defect existed in these items of motor vehicle equipment on or about October 7, 2013.

1. **Manufacturer, Designated Agent, and Other Chain of Distribution Information**

Manufacturer's corporate name: ILJIN Global Co., Ltd.

Equipment's brand or trademark name owner(s) (where applicable):

SKF, MOOG, ILJIN

Designated Agent (imported equipment): ILJIN USA Corporation.

If this notification concerns equipment that was installed in new motor vehicles or new items of motor vehicle equipment, identify by name, address, and telephone number each vehicle manufacturer and equipment manufacturer who purchased that equipment:

Not applicable

If this notification concerns a defective or noncompliant component that the above identified manufacturer did not manufacture, identify that component and provide the name, address, and phone number of the manufacturer of the component (if this manufacturer is unknown, provide this information as to the supplier of the component):

Not applicable

Name, address, email, and phone and fax numbers for the person(s) to whom inquiries about this report should be directed:

Kelly T. Grubaugh
Director - Engineering & Quality
Assurance ILJIN USA Corporation
28055 Haggerty Road
Novi, MI 48377
248-848-1021 Office
734-693-4546 Mobile
Email: kelly.t.grubaugh@ILJIN.com

Manufacturer's assigned campaign number (where applicable): None

2. Identification of the Recall Population and Its Size

Complete the tables below for each item of equipment subject to this notification.

Type of equipment: Front Wheel Bearing
Part/Model number: SKF USA Part No. BR930695 There is no corresponding Federal-Mogul MOOG part. ILJIN Part No. IJ223089 (internal part number)
Size and function (where applicable): L: 203mm/ W: 203mm/ H: 133.8mm Provides for low friction rotation of the wheel and is configured to be driven by engine torque through a drive shaft.
Inclusive dates of manufacture (month and year): July, August, September of 2013 (Start production: June 26, 2013)
Other information necessary to describe this equipment: Front Wheel Bearing has wheel speed sensor integrated.
Total number of these items of equipment: SKF USA – Part No. BR930695 11,468

Type of equipment: Front Wheel Bearing
Part/Model number: SKF Part No. BR930658 Federal-Mogul MOOG Part No. 515082 ILJIN Part No. IJ223090 (internal part number)
Size and function (where applicable): L: 203mm/ W: 203mm/ H: 133.8mm Provides for low friction rotation of the wheel and is configured to be driven by engine torque through a drive shaft.
Inclusive dates of manufacture (month and year): July, August, September of 2013 (Start production: June 26, 2013)
Other information necessary to describe this equipment: Front Wheel Bearing has wheel speed sensor integrated.
Total number of these items of equipment: SKF USA – Part No. BR930658 1,512 Federal-Mogul (MOOG) – Part No. 515082 200

Type of equipment: Front Wheel Bearing
Part/Model number: SKF USA Part No. BR930639 Federal-Mogul MOOG Part No. 515083 ILJIN Part No. IJ223091 (internal part number)
Size and function (where applicable): L: 203mm/ W: 203mm/ H: 133.8mm Provides for low friction rotation of the wheel and is configured to be driven by engine torque through a drive shaft.
Inclusive dates of manufacture (month and year): July, August, September of 2013 (Start production: June 26, 2013)
Other information necessary to describe this equipment: Front Wheel Bearing has wheel speed sensor integrated.
Total number of these items of equipment: SKF USA – Part No. BR930639 792 Federal-Mogul (MOOG) – Part No. 515083 570

Type of equipment: Front Wheel Bearing
Part/Model number: SKF USA Part No. BR930722 There is no corresponding Federal-Mogul MOOG part. ILJIN Part No. IJ223089 (internal part number)
Size and function (where applicable): L: 203mm/ W: 203mm/ H: 133.8mm Provides for low friction rotation of the wheel and is configured to be driven by engine torque through a drive shaft.
Inclusive dates of manufacture (month and year): July, August, September of 2013 (Start production: June 26, 2013)
Other information necessary to describe this equipment: Front Wheel Bearing has wheel speed sensor integrated.
Total number of these items of equipment: SKF USA – Part No. BR930722 252

Provide the following information as to all the items of equipment ("the recall population") identified above:

Grand total number of items of equipment in the recall population:

SKF: 14,024
Federal-Mogul (MOOG): 770

The percentage of the recall population you estimate actually contain the defect:

100% of specified SKF part numbers
100% of specified Federal-Mogul (MOOG) part numbers

Identify and describe how the recall population was determined (e.g., on what basis the recalled models were selected and how the inclusive dates of manufacture were determined):

The recall population was determined by examining the records of production of the front wheel bearings by ILJIN and the records of sales to SKF and Federal-Mogul by ILJIN. ILJIN recently developed this design, which had not been produced previously. Production of the defective units began on June 26, 2013, and ended on September 27, 2013. The manufacturing error was identified on October 4, 2013. The manufacturing and production errors were corrected on October 5 and 6, 2013.

The recall population was determined based on the assumption that all units produced after June 26, 2013, and before the corrective actions on October 5 and 6, 2013, were defective and subject to recall.

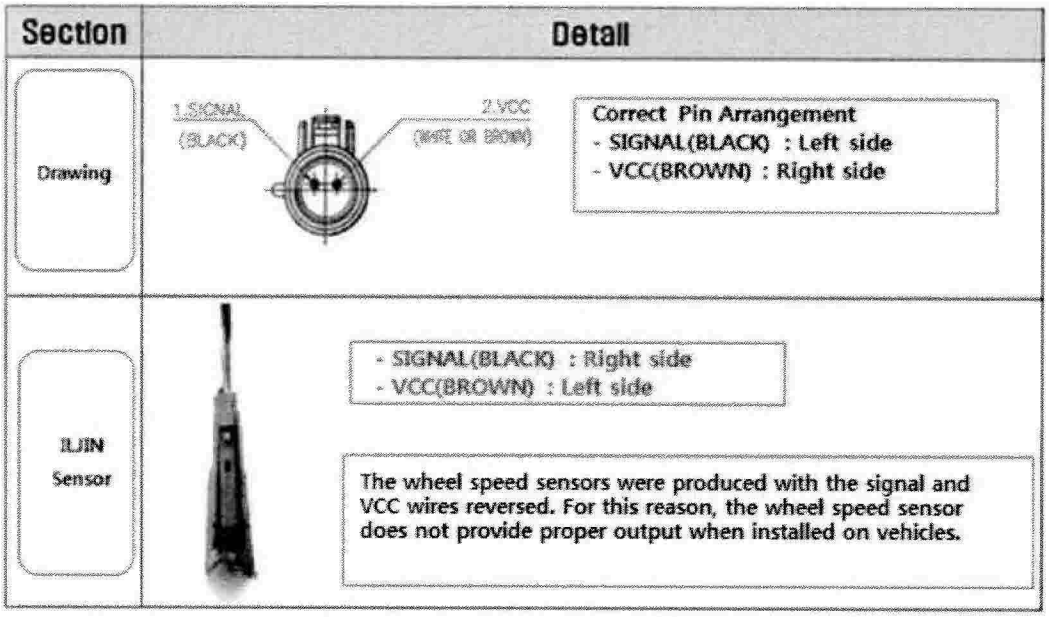
Describe how the recall population is different from any similar items of equipment not subject to this notification:

ILJIN has verified by testing that other front wheel bearings were not subject to the same manufacturing process error.

3. **Description of the Defect or Noncompliance and Chronology of Events**

Describe the defect or noncompliance, including a summary and detailed description of the nature and physical location (if appropriate) of the defect or noncompliance. Graphic aids should be provided where necessary.

The wheel speed sensors of the wheel bearings were produced with the signal and VCC (Integrated Circuit Power Supply) wires reversed. For this reason, the wheel speed sensor does not provide proper output when installed on vehicles. These sensors with reversed wires have been assembled on wheel bearings from the beginning of production on June 26, 2013.



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

The wheel speed sensors on the wheel bearings were produced with reversed wires.

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

The sensor does not provide the proper signal output when the bearing is installed on vehicles. Because the required signal is not transmitted from the sensor to the ABS, the ABS warning light indicates a malfunction and the ABS will not operate. The standard braking system is not affected by this issue.

Identify any warning(s) that may precede the defect or noncompliance condition.

Because the signal output is reversed, the vehicle does not sense the signal needed to operate the ABS systems. The dashboard warning light indicating a malfunction in the ABS will be activated.

For defects, provide a dated, chronological summary of all the principal events that were the basis for the determination that the defect is related to motor vehicle safety, including a summary of all warranty claims, field or service reports, and other information such as numbers of crashes, injuries and fatalities.

ILJIN received several reports from SKF that dashboard warning lights indicating ABS malfunctions were occurring after installing front wheel bearing units. The reports were received by ILJIN on October 2, 2013.

ILJIN conducted a root cause analysis on October 3 and 4, 2013, and determined that the sensors were produced with a reversed connector pin arrangement. ILJIN determined that the manufacturing process error occurred due to a quality control issue when the operator was not informed about the proper orientation of the sensor wires in the involved part numbers. ILJIN also determined that the sensors were only tested for the presence of a signal and were not tested for the correct polarity of the signal.

ILJIN reviewed its production and sales records to identify the parts that were defective. ILJIN decided that this defect existed in these items of motor vehicle equipment on or about October 7, 2013.

There have been no reports of crashes, injuries or fatalities.

For noncompliances, identify the test results and other information considered in determining the existence of the noncompliance, and provide the date of each test and observation indicative of that noncompliance.

Not applicable

4. The Remedy Program and Its Schedule

Describe the program for remedying the defect or noncompliance, including the plan for reimbursing those owners and purchasers who may have incurred costs to remedy the defect or noncompliance before receiving the manufacturer's notification concerning that defect or noncompliance. Also include, where applicable, details with dates concerning any production remedy that was conducted or will be conducted.

On October 4, 2013, ILJIN identified and contained the defective units in its warehouses. ILJIN notified SKF and Federal-Mogul about the defect. ILJIN determined the number of units that were shipped to SKF and Federal-Mogul and requested that SKF and Federal-Mogul segregate the units or ship the units back to ILJIN. The Part 573 Report was sent to SKF and Federal-Mogul.

SKF segregated the units that were in its inventory. SKF issued notices to its customers requesting them to quarantine and return any units in their inventory and to forward the notice to reselling customers. Federal-Mogul also isolated the remaining units in inventory and has contacted its customers to return any unsold units.

ILJIN has completed the reworking of defective units quarantined by SKF and returned by SKF customers. ILJIN removed the defective sensor wiring harness and installed a new sensor wiring harness with the correct pin arrangement and verified functionally. The reworking was done by ILJIN personnel at no charge to SKF.

ILJIN has completed the reworking of defective units held in Federal-Mogul's inventory and those returned to Federal-Mogul by its customers. The reworking was performed in the same manner by ILJIN personnel at no charge to Federal-Mogul.

ILJIN will prepare appropriate recall notices and, following submission of the draft notice to NHTSA, will provide the notice to SKF and Federal-Mogul for distribution to retailers, purchasers and end-users.

ILJIN will repair or pay for repairs to the recalled front wheel bearing that have been sold to retailers or end users. The repair will involve removal of the defective wheel sensor wiring harness from the front wheel bearing. A new wheel sensor wiring harness will be attached and tested. The repair instructions and required parts are immediately available for distribution.

ILJIN will fully reimburse any purchasers or end users who have already removed, repaired or replaced the defective part or paid someone to do so. The recall notice sent to purchasers or end users contains information about contacting SKF or Federal-Mogul to obtain details about the reimbursement program.

ILJIN has agreed to reimburse SKF and Federal-Mogul for their reasonable costs associated with the recall, including shipping, labor, administrative and handling costs.

As a production remedy, ILJIN has modified the wiring and pin arrangement to the correct orientation. An updated work instruction was prepared and supplied to operators with an added instruction to "check proper pin arrangement." The inspection process for inspecting 100% of the parts was updated to include inspection of the proper polarity for the sensor output. Inspection and testing have confirmed that the production remedy has corrected the issues resulting in the defect.

Provide the estimated date(s) on which owner and purchaser notifications will be issued and the estimated date(s) for completion of those notifications.

ILJIN will issue the owner and purchaser notifications immediately after the draft notification is submitted to NHTSA for review. The notifications will be provided to SKF and Federal-Mogul for distribution through their customers.

Provide the estimated date(s) on which dealer and distributor notifications will be issued and the estimated date(s) for completion of those notifications.

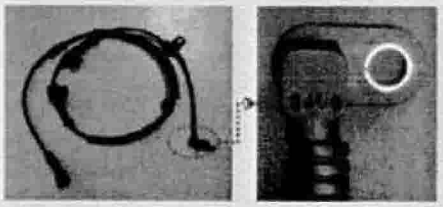
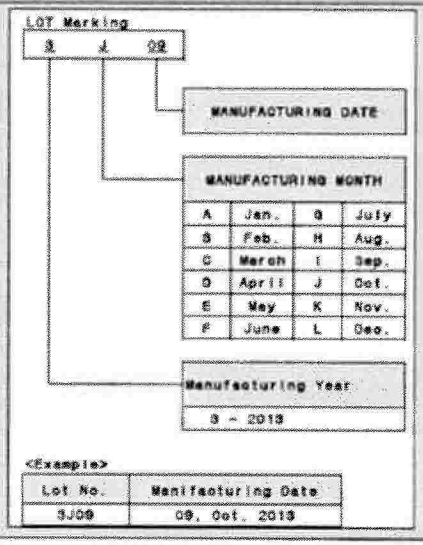
SKF and Federal-Mogul have already been informed by ILJIN about the defect and recall. SKF and Federal-Mogul have informed their customers.

ILJIN will issue the dealer and distributor notifications immediately after the draft notification is submitted to NHTSA for review.

Describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

The remedy component is a front wheel bearing with a wheel sensor with a properly oriented connector pin arrangement, which delivers the correct signal to the vehicle and provides for correct functioning of anti-lock braking systems.

The remedy component has been produced since October 7, 2013. The manufacturing date or lot marking is molded into the sensor body. The table below explains where the marking is located and how to decipher the date code.

Sensor Lot Marking	Sensor Lot Marking Standard
	
Sensors which have the correct pin arrangement have been produced since October 7, 2013.	