

# Part 573 Safety Recall Report

# 18V-772

**Manufacturer Name :** Subaru of America, Inc.

**Submission Date :** NOV 13, 2018

**NHTSA Recall No. :** 18V-772

**Manufacturer Recall No. :** WTY-84



## Manufacturer Information :

**Manufacturer Name :** Subaru of America, Inc.

**Address :** One Subaru Drive

Camden NJ 08103

**Company phone :** 856-488-8500

## Population :

**Number of potentially involved :** 165,534

**Estimated percentage with defect :** 1 %

## Vehicle Information :

**Vehicle 1 :** 2013-2013 Subaru BRZ

**Vehicle Type :** LIGHT VEHICLES

**Body Style :** 2-DOOR

**Power Train :** GAS

**Descriptive Information :** -Description of the issue: The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

-The basis for how the recall population was determined: Vehicles equipped with engines which have an improper design of the valve train which may result in excessive stress to the valve springs are included in population. In May 2013, the lower limit of the tolerance of the valve spring wire diameter was raised to compensate for the excessive stress.

-How the recalled products differ from products that were not included in the recall: Products that were not included in the recall do not have valve train containing valve springs manufactured with the original width of the tolerance of the spring wire diameter.

-9,467 2013MY Subaru BRZ vehicles are affected

**Production Dates :** DEC 09, 2011 - JUL 02, 2013

**VIN Range 1 : Begin :**

NR

**End :** NR

Not sequential

**Vehicle 2 :** 2013-2013 Toyota Scion FR-S

**Vehicle Type :** LIGHT VEHICLES

**Body Style :** 2-DOOR

**Power Train :** GAS

**Descriptive Information :** -Description of the issue: The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

-The basis for how the recall population was determined: Vehicles equipped with engines which have an improper design of the valve train which may result in excessive stress to the valve springs are included in population. In May 2013, the lower limit of the tolerance of the valve spring wire diameter was raised to compensate for the excessive stress.

-How the recalled products differ from products that were not included in the recall: Products that were not included in the recall do not have valve train containing valve springs manufactured with the original width of the tolerance of the spring wire diameter.

- 25,285 2013MY Toyota Scion FR-S vehicles are affected

Production Dates : MAR 13, 2012 - JUL 08, 2013

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 3 : 2013-2013 Subaru XV Crosstrek

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : -Description of the issue: The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

-The basis for how the recall population was determined: Vehicles equipped with engines which have an improper design of the valve train which may result in excessive stress to the valve springs are included in population. In May 2013, the lower limit of the tolerance of the valve spring wire diameter was raised to compensate for the excessive stress.

-How the recalled products differ from products that were not included in the recall: Products that were not included in the recall do not have valve train containing valve springs manufactured with the original width of the tolerance of the spring wire diameter.

- 39,670 2013MY Subaru XV Crosstrek vehicles are affected

Production Dates : MAY 17, 2012 - JUL 02, 2013

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 4 : 2012-2013 Subaru Impreza

Vehicle Type : LIGHT VEHICLES

Body Style : STATIONWAGON

Power Train : GAS

Descriptive Information : -Description of the issue: The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

-The basis for how the recall population was determined: Vehicles equipped with

engines which have an improper design of the valve train which may result in excessive stress to the valve springs are included in population. In May 2013, the lower limit tolerance of the valve spring wire diameter was raised to compensate for the excessive stress.

-How the recalled products differ from products that were not included in the recall: Products that were not included in the recall are as follows:

1. Products that do not have valve train containing valve springs manufactured with the original width of the tolerance of the spring wire diameter.

2. Products that were manufactured before January 2012, when introduction of new type engine and production volume increase resulted in the rate of valve spring fracture to increase.

- 63,998 2012-13MY Subaru Impreza STATION WAGON vehicles are affected

Production Dates : JAN 17, 2012 - JUN 13, 2013

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 5 : 2012-2014 Subaru Impreza

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : -Description of the issue: The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

-The basis for how the recall population was determined: Vehicles equipped with engines which have an improper design of the valve train which may result in excessive stress to the valve springs are included in population. In May 2013, the lower limit of the tolerance of the valve spring wire diameter was raised to compensate for the excessive stress.

-How the recalled products differ from products that were not included in the recall: Products that were not included in the recall are as follows:

1. Products that do not have valve train containing valve springs manufactured with the original width of the tolerance of the spring wire diameter.

2. Products that were manufactured before January 2012, when introduction of new type engine and production volume increase resulted in the rate of valve spring fracture to increase.

- 27,114 2012-14MY Subaru Impreza 4-DOOR vehicles are affected

Production Dates : JAN 17, 2012 - OCT 03, 2013

VIN Range 1 : Begin :

NR

End : NR

Not sequential

**Description of Defect :**

Description of the Defect : The valve springs located inside the engine of the affected vehicles may fracture, which may cause an abnormal noise or engine malfunction. In the worst case, the engine may stall during driving.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If a valve spring fractures, it may result in engine stalling and the inability to restart the vehicle, increasing the risk of a crash.

Description of the Cause : Due to an improper design of the valve train within the engine, an excessive stress is generated compared to the design condition. Very small amount of the impurity within the composition of the spring material is not avoidable in the manufacturing process. The excessive stress combined with the dispersion of the impurity within the composition of the valve spring material under normal course of manufacturing may cause the valve spring to fracture.

Identification of Any Warning that can Occur : Abnormal noise or vibration may occur prior to the engine stalling.

**Supplier Identification :****Component Manufacturer**

Name : NHK SPRING CO., LTD.

Address : 3-10, Fukuura, Kanazawa-ku  
Yokohama FOREIGN STATES 236-0064

Country : Japan

**Chronology :**

Chronology of defect provided via separate attachment (i.e. Subaru Chronology of Defect (WTY-84).pdf)

**Description of Remedy :**

Description of Remedy Program : For all the affected vehicles, replace all valve springs with remedied ones.

How Remedy Component Differs from Recalled Component : The remedy component manufactured with the lower limit of the tolerance of the spring wire diameter raised.

Recalled Component Name: SPR-VALVE

Recalled Component Description: VALVE SPRING

Recalled Component Part numbers: 13217AA520

**Identify How/When Recall Condition was Corrected in Production :** In order to meet the actual stress from the valve train to the valve spring, the lower limit of the tolerance of the spring wire diameter was raised. This improvement was implemented from May 14, 2013 on the engine manufacturing line.

## **Recall Schedule :**

**Description of Recall Schedule :** Owner notification will occur within 60 days. If parts are not available by that time, owners will be notified that parts are not available yet and they will be re-notified once parts are available.

**Planned Dealer Notification Date :** NOV 01, 2018 - NOV 01, 2018

**Planned Owner Notification Date :** DEC 28, 2018 - DEC 28, 2018

\* NR - Not Reported