

April 23, 2019

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing, Indiana, Inc. ["TMMI"]
4000 Tulip Tree Drive, Princeton, IN 47670-4000

Affiliated U.S. Sales Company

Toyota Motor North America, Inc. ["TMNA"]
6565 Headquarters Drive, Plano, TX 75024

2. Identification of Involved Vehicles and Affected Components:

Based on production records, we have determined the involved vehicle population as in the table below.

Make/Car Line	Model Year	Manufacturer	Production Period
Toyota / Sienna	2019	TMMI	February 12, 2019 through February 19, 2019

Applicability	Part Number	Part Name	Component Description
MY2019 Toyota Sienna	67001-08070	Panel Sub-Assy Front Door, RH	Passenger Side Front Door Sub-Assembly

Note: (1) Although the involved vehicles are within the above production period range, not all vehicles in this range were sold in the U.S.

(2) This issue only involves certain 2019MY Toyota Sienna vehicles produced at TMMI involving specific front passenger side doors from a specific manufacturing process during a specific and limited production period. No other Toyota or Lexus vehicles sold in the U.S. are affected.

3. Total Number of Vehicles Potentially Involved:

274

4. Percentage of Vehicles Estimated to Actually Contain the Defect:

Based on results from inspections of 1,361 doors during the investigation, Toyota estimates that approximately 78% of the involved vehicles may have the condition in the door described in this document.

5. Description of Problem:

The subject vehicles are equipped with front door impact beams that are welded to inner door panels using spot welds on brackets attached to the beams. During the manufacturing process of the passenger side front doors, there is a possibility that some of these spot welds may not meet the minimum specification for weld size. This could affect the stiffness of the bracket, which could, in turn, affect load transfers to an airbag sensor. In certain cases, the passenger side front seat and curtain shield airbags may not deploy as intended. In other cases, these airbags could inadvertently deploy. An airbag that does not deploy as intended or deploys inadvertently can, under some circumstances, increase the risk of injury or the possibility of a crash.

6. Chronology of Principal Events:

February 2019 – April 2019

Toyota Motor Manufacturing Indiana (TMMI) randomly selects a front passenger side door from production each week and conducts weld cut checks on the rear bracket that is attached to an impact beam inside the door. On February 14, 2019, during a cut check, it was found that two of the six spot welds did not meet the minimum specification for weld width.

TMMI immediately began an investigation. TMMI reviewed production history records and determined that the prior weekly cut check was completed on February 7, 2019 and that the part was within specification. TMMI inspected doors that were produced on February 7 and 8, 2019, and the welds were found to be within specification.

TMMI conducts a weld tip change at the beginning of each day of production. After confirming some doors from February 8, 2019 were within specification, TMMI contained and inspected additional doors that were produced on February 8 and from the next production day (February 11, 2019). It was found that doors produced immediately prior to that weld tip change (i.e. second shift production on February 8) were found to be within

specification. Doors that were produced after that change were also inspected and some were found to be out of specification. Toyota continued to investigate and inspect vehicles to better understand the cause and implication, if any, of the rear bracket having out of specification welds.

After a further review and investigation, it was found that the weld tip former blade, which is used to reshape the weld tip after every weld cycle, was broken. This could cause the weld tip not to be shaped properly, which can result in insufficient weld size and penetration. Based on the investigation results to this point, on February 14, 2019 TMMI changed the blade with a new one, and on February 15, 2019 TMMI improved the production process to include a check of the weld tip face after the weld tip is reshaped for the first time to ensure that subsequent brackets are properly welded.

Toyota also undertook a design analysis to determine whether there could be an effect of undersized welds on any aspect of vehicle performance. It was unclear whether airbag deployment might be affected, because the data from the sensors recorded during a collision is processed and filtered using complex algorithms, and any deviation from smaller-than-specification welds would be difficult to predict. However, it was theoretically possible that the load of an impact may not be properly transferred to the airbag sensor, and, if the welds for the bracket were to become separated, the measured threshold for airbag deployment could change, which could affect the passenger side front seat and curtain shield airbag performance.

As the investigation and inspection of vehicles continued, additional brackets were found to have welds that were out of specification. However, at that time, of the vehicles inspected, none were found to have a separated bracket. Toyota continued to inspect doors produced after February 11, 2019 to determine if these doors contained a separated bracket.

The results of the inspection activity concluded that all doors contained at least one spot weld that was within specification and there were no cases of rear bracket separation. Additionally, Toyota considered the long-term durability of the welds and could not guarantee that the sensor would perform as designed with welds that were out of specification. Although there were no cases of bracket separation, out of an abundance of caution, Toyota could not rule out that the insufficient welds could potentially affect the load transfers to the airbag sensor, which could cause the passenger side front seat and curtain shield airbags not to deploy as intended in certain cases, or in other cases cause an inadvertent deployment of these airbags.

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Based on the above investigation, Toyota decided to conduct a voluntary safety recall campaign on the subject vehicles.

As of April 15, 2019, based on a diligent review of records, Toyota's best engineering judgment is that there are no Toyota Field Technical Reports or warranty claims that have been received from U.S. sources that relate to this condition and which were considered in the decision to submit this report.

7. Description of Corrective Repair Action:

All known owners of the subject vehicles will be notified to return their vehicles to a Toyota dealer. The dealers will replace the passenger side front door sub assembly with a new one.

Reimbursement Plan for pre-notification remedies

As the owner notification letters will be mailed out well within the active period of the Toyota New Vehicle Limited Warranty, all involved vehicle owners for this recall would have been provided a repair at no cost under Toyota's Warranty.

8. Recall Schedule:

Toyota will notify owners of the affected vehicles by mid-June, 2019. A copy of the draft owner notification will be submitted as soon as it is available.

9. Distributor/Dealer Notification Schedule:

Notifications to distributors/dealers will be sent on April 23, 2019. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer's Campaign Number:

K1G [Interim]

K0G [Final]