

October 26, 2023

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

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

Affiliated U.S. Sales Company:

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

Manufacturer of Front Lower Bumper Cover Assembly:

Toyota Motor Manufacturing, Indiana, Inc. ["TMMI"]
4000 Tulip Tree Dr., Princeton, IN 47670
Phone: +1- 812-387-2266

Country of Origin: USA

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 / Highlander	2020-2023	TMMI	June 24, 2019 through August 12, 2023
Toyota / Highlander Hybrid			June 27, 2019 through August 10, 2023

Applicability	Part Number	Part Name	Component Description
MY2020-2023 Toyota Highlander/ Highlander Hybrid	52129-0E070 52129-0E100 52129-0E190 52129-0E200	Cover, Front Bumper, Lower	Lower Front Bumper Cover

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) Highlander XSE grade utilizes a one-piece lower front bumper cover with lower grill and a different attachment structure that is not affected by the condition described in Section 5 below. Other Toyota or Lexus vehicles sold in the U.S. are equipped with a lower front bumper cover with a different attachment structure or are not equipped with a lower front bumper cover.

3. Total Number of Vehicles Potentially Involved:

Highlander : 558,314
Highlander Hybrid : 192,451
Total : 750,795

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

Unknown. Toyota is unable to provide an estimate of the percentage of vehicles to actually contain the defect. Whether detachment of the mounting tabs occurs that will lead to a separation of the lower front bumper cover, the engine under cover, and the fender liners while driving depends, in each case, on the severity of the impact to the front bumper assembly and the retention force of the remaining attachment points. However, as the NHTSA manufacturer portal requires an integer value be entered, Toyota has entered the value “1” in response to this question in the portal. For the purpose of this report, “1” means “unknown”.

5. Description of Problem:

The subject vehicles are equipped with a resin front bumper cover assembly consisting of an upper and a lower front bumper cover. The engine under cover and left and right fender liners are connected to the lower bumper cover. The lower bumper cover is connected to the upper bumper cover by push-clips and mounting tabs. If there is minor impact to the lower front bumper cover during normal vehicle operation, some of the mounting tabs could detach, and the retention force of the remaining attachment points may become compromised. In this condition, the lower bumper cover, the engine under cover, and the fender liners may detach from the vehicle while driving, which could become a road hazard, increasing the risk of a crash or injury for other road users.

6. Chronology of Principal Events:

May 2021-July 2022

Toyota received four field reports indicating the lower front bumper cover had come off. Front impact damage had been noted on the vehicles. Toyota could not recover the parts for further investigation.

August 2022 – January 2023

Toyota received additional field reports about lower front bumper covers coming loose and dragging and/or detaching. The parts from these vehicles were recovered for further inspection. Due to the amount of damage to the recovered parts, it was difficult to accurately measure and analyze them. However, no obvious design or manufacturing concerns were noted. The investigation continued.

Toyota conducted wind tunnel testing to attempt to duplicate the conditions under which the lower front bumper cover might detach from a vehicle. The duplication testing also involved intentionally unseating mounting tabs. During the testing, Toyota was able to duplicate separation of the lower front bumper cover when some of the mounting tabs were unseated; however, the evaluation was not able to determine how the mounting tabs might become unseated.

February 2023 – October 2023

To further understand why the mounting tabs might become unseated, Toyota investigated the front bumper cover assembly process. No assembly issues were found.

During this time, Toyota also investigated vehicles being transported to and from distribution centers by rail and truck to confirm if the vehicles were being properly secured and not causing any mounting tabs to become unseated during the delivery process. No unusual circumstances were observed. If transportation damage occurred, appropriate processes were in place to repair the vehicles.

Toyota performed a design review of the subject Highlander front bumper cover assembly and did a comparison with previous generation Highlander vehicles. The previous generation Highlander vehicles utilized outside molding retainers for securing the mounting tabs, and these outside molding retainers had not been used in the subject vehicles.

Toyota also conducted tests where potential impacts on the lower front bumper cover could occur under normal driving conditions where minor impacts might be expected to occur to evaluate whether the mounting tabs could become unseated and potentially lead to cover

separation. It was confirmed during these tests that partial detachment of mounting tabs could be duplicated when minor impacts with objects such as curbs occurred.

Testing was also done by performing approach and unloading testing, where there is potential for the lower front bumper cover to drag when approaching or backing down a steep incline, or the vehicle is loaded/unloaded from a truck, to assess whether the angle of approach or unloading could affect the mounting tabs. The results indicated that, at a higher-degree approach/unloading angle, some of the mounting tabs could detach after repeated dragging.

Additional testing at highway speeds was conducted with mounting tabs intentionally unseated. The lower front bumper assembly (including the engine under cover and fender liners) completely detached from the vehicle.

As a result of this testing, Toyota determined how the mounting tabs could be damaged and cause lower front bumper assembly detachment. Toyota decided a detached lower front bumper assembly could become a road hazard, increasing the risk of a crash or injury for other road users.

October 19, 2023

Based on the results of the above investigation, Toyota decided to conduct a voluntary safety recall campaign for the vehicles identified above.

As of October 19, 2023, based on a diligent review of records, Toyota's best engineering judgement is there are 13 Toyota Field Technical Reports (received between May 5, 2021 and August 11, 2023) and 70 warranty claims that have been received from U.S. sources that relate or may relate to this condition 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. For all involved vehicles, Toyota dealers will inspect the upper to lower front bumper cover mounting tabs and slots for damage. If no damage is found, dealers will install retention hardware with an improved design. If damage is found, dealers will replace the upper and/or lower front bumper cover and install retention hardware with an improved design free of charge.

Reimbursement Plan for pre-notification remedies

The owner letter will instruct vehicle owners who have paid to have this condition remedied prior to this campaign to seek reimbursement pursuant to Toyota's General Reimbursement Plan.

8. Recall Schedule:

Notifications to owners of the affected vehicles will occur by December 25, 2023. 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 October 26, 2023. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer's Campaign Number:

[Interim/Remedy]: 23TB12 / 23TA12