

July 7, 2023

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing, Texas, Inc. ["TMMTX"]
1 Lone Star Pass, San Antonio, TX 78264-3413

Affiliated U.S. Sales Company:

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

Manufacturer of Spare Tire Carrier Assembly:

MANNOH INDUSTRIAL CO., LTD.
4-14-24, Imahon-machi, Anjo-city, Aichi-pref., 446-8522, Japan
Telephone: +81-566-97-8511

Country of Origin: Japan

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 / Tundra	2023	TMMTX	May 30, 2023 through June 5, 2023
Toyota / Tundra Hybrid	2023	TMMTX	May 30, 2023 through June 6, 2023

Toyota / Sequoia Hybrid	2023	TMMTX	May 30, 2023 through June 7, 2023
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Applicability	Part Number	Part Name	Component Description
MY2023 Toyota Tundra / Tundra Hybrid / Sequoia Hybrid	51900-34070	CARRIER ASSY, SPARE WHEEL	Spare Tire Carrier

- 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 affects vehicles equipped with specific spare tire carrier assemblies that use chain links that were manufactured by a specific supplier during a specific production period. Other Toyota or Lexus vehicles sold in the U.S. did not receive the affected spare tire carrier assemblies that use affected chain links.

3. Total Number of Vehicles Potentially Involved:

Tundra : 768
Tundra Hybrid : 181
Sequoia Hybrid : 449
Total : 1,398

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

Toyota is unable to estimate the percentage of the involved vehicles to actually contain the defect. Whether the issue, in each case, will actually lead to spare tire detachment from the vehicle as described in Section 5 depends on various factors such as vehicle driving conditions, whether a vehicle actually contains the affected chain links, and whether an affected link is bearing the load of the spare tire under the vehicle. 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 spare tire carrier assembly which uses a steel chain to secure the spare tire to the underside of the vehicle. There is a possibility that at the supplier facility during a specific production period, some of the chain links may have been exposed to water before the welding process was completed. In this condition, those individual chain links may not have been sufficiently welded, resulting in a significant reduction in their load bearing capacity. If the individual chain link that is bearing the load of the spare tire is affected by this condition, this could allow the chain to break at any time, allowing the spare tire to detach from the vehicle. If this occurs while the vehicle is being driven, a detached spare tire can become a road hazard to other drivers/vehicles and increase the risk of a crash.

6. Chronology of Principal Events:

June 2023

In early June, 2023, Toyota found a broken spare tire chain with a spare tire that had detached from the vehicle at its vehicle manufacturing facility. Subsequently, Toyota identified that the chains on the spare tire carriers had broken on three additional vehicles at Toyota facilities. Toyota identified the date the broken chains were shipped to Toyota's manufacturing facility and contacted the supplier for investigation.

After a review of the manufacturing process history of the chain, the supplier identified that for a specific production period in December 2022, a water leak had occurred in the area of its facility used for welding the chain links and that the chains produced during this production period were exposed to water from that leak before the welding process had been completed.

Throughout June, Toyota and the suppliers of the chain link and the tire carrier assembly conducted various duplication testing activities on the potential effect of the water leak on the strength of the chain. As part of these activities, the suppliers conducted a tensile strength test using an individual chain link that was intentionally reproduced to match the production conditions during the water leak period. As a result of the tensile strength test, it was found that the reproduced chain link fractured when the chain was pulled with a load lower than the specification and that the fractured surface was similar to the broken chain link(s) that were identified at the Toyota facilities in early June. Toyota confirmed that the water leak could cause an insufficient weld on the chain link, leading to the decrease of the tensile strength of the affected chain links. The analysis indicated that if the individual link that is bearing the load of the spare tire is affected by this condition, the chain could break at any time, allowing the spare tire to detach from the vehicle.

June 30, 2023

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

As of June 27, 2023, based on a diligent review of records, Toyota's best engineering judgment is that there are zero Toyota Field Technical Reports and zero warranty claims that have been received from U.S. sources that relate or may 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. For all involved vehicles, the dealers will replace the spare tire carrier assembly with a new one at no cost.

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 ("Warranty"), all involved vehicle owners for this recall would have been provided a repair at no cost under the warranty.

8. Recall Schedule:

Notifications to owners of the affected vehicles will occur by September 5, 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 by July 7, 2023. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer's Campaign Number:

[Interim / Remedy]: 23TB06 / 23TA06