

December 5, 2024

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing Canada Inc. ["TMMC"]
1055 Fountain Street North, Cambridge, Ontario, Canada N3H 5K2

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 / RAV4	2024	TMMC	September 6, 2024 through September 6, 2024
Lexus / NX	2025	TMMC	September 6, 2024 through September 6, 2024

Applicability	Part Number	Part Name	Component Description
MY2024 Toyota / RAV4	90080-10067 90105-12401 90105-A0437	Bolt, Hexagon (For Front Disc Brake Caliper)	Brake Caliper Mounting Bracket Bolt
	90105-12405 90105-A0388	Bolt, Flange	Wheel Hub Bearing Bolt
MY2025 Lexus / NX	90105-12401 90105-A0437	Bolt, Hexagon (For Front Disc Brake Caliper)	Brake Caliper Mounting Bracket Bolt
	90105-12405 90105-A0388	Bolt, Flange	Wheel Hub Bearing Bolt

- 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 recall covers the vehicles listed above that were produced using a specific backup bolt tightening process that was used for a limited period of time at a specific production facility.

3. Total Number of Vehicles Potentially Involved:

Toyota RAV4 : 54
Lexus NX250 : 3
Lexus NX350h : 5
Lexus NX350 : 8
Total : 70

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

Toyota is unable to estimate the percentage of the involved vehicles to contain the defect described in Section 5. 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 front brake calipers and wheel hubs that are attached to the front suspension steering knuckles with bolts. The front brake caliper mounting bracket bolts and one of the four hub bearing bolts may not have been properly tightened during the manufacturing process and can loosen over time. If one brake caliper mounting bracket bolt becomes detached from the caliper, the caliper may move from its original location and contact the inside of the wheel, resulting in an abnormal rattling noise while driving. If both caliper mounting bracket bolts loosen to a point that they detach from the caliper, the caliper may move sufficiently to overstress the caliper brake hose overtime, potentially resulting in a brake fluid leak. If a hub bearing bolt is loose, it may cause movement between the front axle hub assembly and steering knuckle, resulting in vibration and abnormal noise from the front axle area. Eventually, there is a possibility that the

remaining hub bearing bolts can also loosen and the wheel can separate. A brake fluid leak may lead to an increased stopping distance and wheel separation can lead to a loss of vehicle control. Either can increase the risk of a crash.

6. Chronology of Principal Events:

October 2024 – November 2024

On October 11, Toyota received a dealer report on a 2025 Lexus NX vehicle about the owner's complaint that the wheel weights, which are attached to the inner radius of the wheel, had become detached from the left front wheel. Upon further inspection, the dealer technician observed scrape marks around the inner radius of the wheel. It was also observed that one of the two bolts that attached the brake caliper mounting bracket to the front suspension steering knuckle was missing, allowing the brake caliper to move and contact the inner radius of the wheel. Toyota began investigating the manufacturing process used to install and tighten the brake caliper mounting bracket bolts on the subject vehicle.

Based on a review of production records, the brake calipers on the vehicle subject of the dealer's report were assembled to the suspension late in the evening of September 5, 2024, a day in which the manufacturing equipment used to install and tighten the two front brake caliper mounting bracket bolts and one of four hub bearing bolts attaching the wheel hub to the suspension arm was inoperable for a few hours and being repaired. During this short time, a backup tool was used to manually install and tighten both brake caliper mounting bracket bolts and one of four wheel hub bearing bolts.

Toyota initiated a survey of vehicles in dealer inventory that had front caliper bolts and the one hub bearing bolt installed on the same production date using the aforementioned backup process. Based on that survey, five of the nine vehicles inspected had one or more brake caliper mounting bracket and/or wheel hub bearing bolt measure below the design torque specification.

Based on the original report and the survey results, Toyota undertook an analysis of the potential effects of loose brake caliper mounting bracket bolts and wheel hub bearing bolts. The analysis confirmed three points: (1) if one brake caliper mounting bracket bolt loosens over time and eventually detaches, the caliper can move and contact the inside of the wheel, resulting in an abnormal rattling noise; (2) if both brake caliper mounting bracket bolts detach, in addition to the rattling noise, the loose caliper can cause additional stress on the brake hose, damaging it to the point that a fluid leak could occur; and (3) if the hub bearing bolt loosens over time, it can allow movement between the front axle hub assembly and steering knuckle, resulting in vibration and abnormal noise from the front axle area and potentially causing the other three hub bearing bolts to loosen and/or detach, which could lead to wheel separation. A brake fluid leak may lead to an increased stopping distance and wheel separation can lead to a loss of vehicle control. Either can increase the risk of a crash.

December 3, 2024

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

As of November 27 2024, based on a diligent review of records, Toyota's best engineering

judgement is that there are no Toyota Field Technical Reports and one warranty claim 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 by first class mail to return their vehicles to a Toyota or Lexus dealer. For all involved vehicles, Toyota and Lexus dealers will ensure the front brake caliper mounting bracket and hub bearing bolts are tightened to the correct specification. If any components in the wheel area are damaged, they will be replaced. The corrective action will be at no charge to owners.

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”) and Lexus New Vehicle Limited Warranty (“Warranty”), all involved vehicle owners for this recall would have been provided a repair at no cost under Toyota’s and Lexus’s Warranty.

8. Recall Schedule:

Notifications to owners of the affected vehicles will occur by February 3, 2025. 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 December 5, 2024. Copies of dealer communications will be submitted as they are issued.

10. Manufacturer’s Campaign Number:

Toyota: 24TA14
Lexus: 24LA08