



Nissan North America, Inc.

One Nissan Way
Franklin, TN 37067

Mailing Address:
PO Box 685001
Franklin, TN 37068

May 31, 2024

Ms. Eileen Sullivan
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attn: Recall Management Division (NVS-215)
Room W48-302
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Dear Ms. Sullivan:

We are transmitting the enclosed Defect Information Report in accordance with 49 CFR Part 573. A voluntary recall campaign will be initiated and your office provided with the notices.

Very truly,

A handwritten signature in black ink, appearing to read "Will Swindell".

Will Swindell
Manager,
Technical Compliance

Encl.

DEFECT INFORMATION REPORT

1. Manufacturer:

Nissan Motor Tochigi Plant

2. Vehicles Potentially Involved:

Certain Model Year 2023 Nissan Ariya vehicles as shown in the table below:

<u>Model</u>	<u>Dates of Manufacture</u>	<u>Plant</u>
MY 2023 Nissan Ariya	May 30, 2022 through February 27, 2023	Tochigi

According to internal Nissan plant production records, the issue (as described in Section 5 below) occurred on certain Model Year 2023 Ariya vehicles during traction motor assembly throughout a specific time period. No additional Nissan or INFINITI vehicles are affected.

The name, description and part number of the subject components are below:

<u>Part Name</u>	<u>Part Description</u>	<u>Part Number</u>
Motor Assy-Traction	Traction Motor Assembly	290A0 5MPOF

3. Total Number of Vehicles Potentially Involved:

Approximately 84 MY 2023 Nissan Ariya vehicles total.

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

Approximately 100%.

5. Description of the Defect:

During the traction motor assembly process, O-rings inside the motor may have been damaged on certain Ariya vehicles. If the O-rings are damaged, it can lead to an oil leak within the motor, causing abnormal wear and debris. Over time, the debris and oil may combine, forming a mixture that can accumulate between the brush terminal and the motor housing.

The build-up of this mixture has a risk of generating an abnormal electrical current flow within the Electric Vehicle (EV) traction motor. Subsequently, the abnormal condition may cause the vehicle to activate “fail-safe” mode, potentially resulting in loss of motive power without warning, and no ability to restart. If loss of motive power occurs without warning while driving, it may increase the risk of a crash. If the condition occurs, a Malfunction-Indicator-Lamp (MIL) along with a warning message “Restart is prohibited” will illuminate on the vehicle information display.

6. Chronology of Principal Events:

February 2023 - Nissan received one (1) report in Japan regarding a Model Year 2023 Ariya, alleging a warning message of “EV system failure, vehicle cannot be restarted” illuminated on the vehicle information display while driving. Initial investigation of the vehicle at the dealership identified a Diagnostic Trouble Code (DTC) for high voltage/battery voltage system insulation error. The technician reported clearing the code, and was unable to duplicate the incident condition. Nissan collected the traction motor assembly for further investigation.

March 2023 through April 2023 – Initial findings from the field part investigation revealed an internal insulation failure within the traction motor assembly. After further analysis, an oil leak was found potentially as a result of a damaged internal O-ring.

Based on the investigation findings, Nissan conducted a thorough inspection of the traction motor assembly process. The investigation identified a potential risk of interference between a production press-fit jig and the subject O-ring seal.

May 2023 – Nissan received one (1) additional report in Japan alleging the vehicle’s electric motor stopped while driving, along with a warning message displayed on the vehicle information display. Nissan collected this traction motor assembly for analysis.

June 2023 through July 2023 – The results of the second field part investigation identified a similar oil leak path from the internal O-ring. Nissan implemented production countermeasures by modifying the shape of the traction motor bearing press-fit jig to prevent potential interference with the O-ring during assembly.

August 2023 through January 2024 – Nissan reviewed internal tooling production records and identified certain instances with an abnormally high bearing press-fit load. Nissan also conducted replication bench testing to understand the relationship between production data for the bearing press-fit load and potential damage to the internal O-ring.

February 2024 – Nissan concluded the replication testing utilizing the bearing press fit load data and determined approximately 84 USA market vehicles may have been manufactured with a damaged O-ring.

March 2024 – Nissan initiated an assessment of the potential effects of the oil leak from the O-ring.

April 2024 through May 2024 - Nissan concluded its assessment and determined that damage to the O-ring during the press-fit process may lead to oil leakage, which may mix with debris over time depending on the leak path. Accumulation of this mixture between the brush terminal and the motor housing could result in an abnormal electrical current within the EV traction motor. In this condition, the vehicle would activate “fail-safe” mode, potentially causing a sudden loss of motive power without the ability to restart. In the event this occurs, a MIL and warning message “Restart is prohibited” will illuminate on the vehicle information display.

May 23, 2024 - Nissan decided to conduct a Voluntary Safety Recall for all potentially affected vehicles.

Nissan has confirmed a total of two (2) reports related to the subject condition. Nissan is not aware of any accident or injuries related to the subject condition.

7. Description of Corrective Action:

Dealers will be notified of the recall on June 4, 2024. Beginning July 12, 2024, owners of all potentially affected vehicles will be notified to bring their Ariya to a Nissan dealer for replacement of the front traction motor assembly. All repairs will be performed free of charge for parts and labor and may take up to ten and a half (10.5) hours to complete.

Nissan will not include a statement in the Part 577 owner notification concerning reimbursement for the cost of obtaining a pre-notification remedy because the subject vehicles are under warranty.

8. Copy of Notices:

Copies of all notices will be provided to NHTSA as they become available.