

20V244

3. Chronology of Defect / Noncompliance Determination

2020/2~2020/3

Hino received a Technical Report (TR) from the U.S. reporting that a vehicle failed to start.

Dealer inspection found that the ground cable connecting the battery negative terminal to the frame was broken at the frame terminal. Investigation of the broken cable revealed that the fracture surface exhibited fatigue breakage that had resulted from bending load, while the material and dimensional properties contained no abnormality.

In the meantime, during our investigation of production vehicles, it was determined that on some vehicles the frame side terminal was tightened in an upward direction, instead of the horizontal design angle, as the result of terminal rotation during tightening. Because the rotation may be a possible cause of insufficient length and bending stress on the cable, Hino provided an additional work instruction to insure that the frame terminal be tightened in the horizontal direction, this occurred on March 19.

2020/4

As a result of various investigations, Hino recognized that the elimination of the extension bracket which had previously been installed between the negative battery terminal and the ground cable, without increasing the cable length, may have caused the frame side terminal to break due to bending stress if it is tightened in an upward direction.

On the other hand, Hino confirmed that no failure has been reported on 2019MY and earlier vehicles and that the failure does not occur in those vehicles even if the frame side terminal is tightened in the upward direction. Based on the aforementioned confirmatory result, Hino has determined to add the extension bracket.

As a result of verifying the failure phenomenon, Hino confirmed that breakage of the ground cable terminal does not stop the engine immediately, and does not cause any foreseeable phenomenon including illumination of the battery warning lamp, but resulted in an inability to re-start the engine once stopped.

2020/4/24

Based on the above-mentioned investigation result, Hino held a Safety Committee meeting and determined to implement a voluntary safety recall.

In the meantime, as of April 23, 2020, Hino has not obtained any information of an accident or similar cases pertaining to this failure from either warranty or the field.

2020/5

In reviewing production and repair records by the West Virginia assembly plant, it was discovered that there was a possibility that some 2019MY trucks could have shipped without the extension bracket. Upon learning of this possibility, Hino began an investigation.

2020/6

The Investigation was completed, including review of the production history, and repair records. The investigation revealed that on vehicles produced at the end of 2019MY production, there were 18 units of 2019MY vehicles that were shipped without the extension bracket. This occurred due to a bracket shortage at the assembly plant because of extension bracket elimination that was implemented from the start of 2020MY production.

2020/6/30

Hino held a Safety Committee meeting and decided to expand the recall population to include 18 units that were shipped without the extension bracket from the 2019MY production.

As of June 29, 2020, Hino was not aware of any information of an accident or similar cases pertaining to this failure from either warranty or field records.