

Part 573 Safety Recall Report

24V-547

Manufacturer Name : Motiv Power Systems

Submission Date : JUL 22, 2024

NHTSA Recall No. : 24V-547

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Motiv Power Systems

Address : 330 Hatch Drive
Foster City CA 94404

Company phone : 650-425-3032

Population :

Number of potentially involved : 84

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2024 Motiv Gen 5 EPIC E-450, EPIC 4 BEV

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : ALL

Power Train : NR

Descriptive Information : All vehicles of this Model are included.

Production Dates : JAN 01, 2021 - MAR 01, 2024

VIN Range 1 : Begin : NR

End : NR

☐ Not sequential

Description of Defect :

Description of the Defect : Motiv Power Systems, Inc. has determined that on certain vehicles converted to a Motiv Gen 5 EPIC E-450 powertrain, a Controller Area Network ("CAN") signal wire could potentially chafe against the vehicle's frame rail and short to ground – resulting in a loss of CAN signals. This in turn, could result in a loss of vehicle propulsion.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Loss of propulsion while the vehicle is in motion could increase the risk of a crash.

Description of the Cause : Improper harness retention.

Identification of Any Warning that can Occur : None. The operator would not receive a warning in advance of such an occurrence.

Involved Components :

Component Name 1 : Loopback DCFC Signal Connector

Component Description : Harness termination DCFC (Direct Current Fast Charge) connector with loopback wires.

Component Part Number : 840-110346-001 Rev A

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

7/8/2024: Motiv received a customer report of a loss of power on a Ford E-450 Motiv Gen 5 EPIC4 vehicle. The customer reported a loss of propulsion while driving. Motiv worked with the customer to immediately ground the vehicle and began an investigation of the incident.

7/9 – 7/12/2024: Motiv field technicians conducted an inspection of the affected vehicle. That inspection determined the vehicle had experienced a temporary loss of CAN communication.

6/12 – 7/15/2024: Motiv conducted additional analysis and testing to determine the root cause of the reported loss of propulsion. The investigation determined that a harness termination connector with loopback wires was incorrectly installed. Over time, the loopback wire chafed against the vehicle's frame rail and shorted – temporarily interrupting CAN signals. The temporary loss of CAN signals was responsible for the loss of motor power.

7/16/2024: Further inspections of similar vehicles in the field identified signs of initial chafing on the same CAN wire. As a result of this determination, Motiv concluded that a potential safety risk could not be ruled out and decided to conduct a recall.

Motiv is currently aware of one field report (including warranty claims, field reports, and service reports) received in the US related to this defect. Motiv is not aware of any reported crashes, injuries, or property damage in connection with the defect.

Description of Remedy :

Description of Remedy Program :	Motiv field support technicians will inspect all potentially affected vehicles and correct any erroneous retention and replace any CAN wiring showing signs of chafing at no charge to vehicle owners. Any prior remedy for the problem would have been covered by warranty, so there is no need for a reimbursement program. As noted, Motiv is aware of only one occurrence of this phenomenon. Proper work instructions on how to retain the harness/connector for assembly technicians will be developed before any new vehicles are built.
How Remedy Component Differs from Recalled Component :	Retention means being developed.
Identify How/When Recall Condition was Corrected in Production :	Proper work instructions on how to retain the harness/connector for assembly technicians will be developed before any new vehicles are built.

Recall Schedule :

Description of Recall Schedule :	NR
Planned Dealer Notification Date :	NR - NR
Planned Owner Notification Date :	AUG 16, 2024 - NR

* NR - Not Reported