

Part 573 Safety Recall Report

21V-795

Manufacturer Name : Zero Motorcycles Inc.

Submission Date : OCT 22, 2021

NHTSA Recall No. : 21V-795

Manufacturer Recall No. : SV-ZMC-020-417



Manufacturer Information :

Manufacturer Name : Zero Motorcycles Inc.

Address : 380 El Pueblo Road
Scotts Valley CA 95066

Company phone : 831-438-3500

Population :

Number of potentially involved : 411

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2020-2020 Zero Motorcycles SR/F

Vehicle Type : MOTORCYCLES

Body Style : OTHER

Power Train : HYBRID ELECTRIC

Descriptive Information : All model year 2020 Zero SR/F motorcycles manufactured before December 19, 2019.
The last five digits of the vehicle identification number of affected motorcycles will be 13511 or lower.

Production Dates : APR 10, 2019 - DEC 19, 2019

VIN Range 1 : Begin : 538ZFAZ79LCK11526 End : 538ZFAZ76LCK13511

☒ Not sequential

Description of Defect :

Description of the Defect : The rear rotor bolts on the subject motorcycles were insufficiently torqued.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : One or more rear rotor bolts may back out of their sockets slowly and scratch or damage the caliper arm or swingarm of their motorcycles, which results in an objectionable noise. Should an owner fail to recognize the damage or respond to the noise, the bolt might be damaged to the extent that the rear braking capability would be reduced, and a crash could occur.

Description of the Cause : The rear rotor bolts on the subject motorcycles were insufficiently torqued at the time of motorcycle manufacture.

Identification of Any Warning that can Occur : If one or more rear rotor bolts were to back out sufficiently to contact the caliper arm or swingarm, the owner would hear a high pitched, objectionable noise. Damage to the caliper arm or swingarm would be observable upon inspection.

Involved Components :

Component Name 1 : STAR DRIVE BUTTON HEAD SCREW M8X20 W/ PRE-APPLIED

Component Description : STAR DRIVE BUTTON HEAD SCREW M8X20 W/ PRE-APPLIED LOCK PATCH

Component Part Number : 90-08259

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

Zero Motorcycles received notification of one instance of damage caused by a rear rotor bolt backing out of its socket on MY20 Zero SR/F motorcycles in September 2019, and an additional two in October 2019. All of these vehicles were deployed as demonstrator vehicles in Europe. One of these was a demonstrator vehicle still owned Zero Motorcycles BV at the time of the report.

As a result of these reports, Zero Motorcycles investigated the bolts used, the production processes and torque values. We confirmed that all bolts were installed using Loctite and were being torqued to 10 ft-lbs, which was the specified torque value. As a result of our review, we concluded that the torque was insufficient, and we increased our specification to 26 ft-lbs. This change in manufacturing process was implemented on December 19, 2019.

On January 20, 2020, Zero Motorcycles initiated a service campaign and notified dealers and owners of the torque value change. The company has been conducting an ongoing service campaign since that date. During this time, only one additional motorcycle was reported as having a rear rotor bolt back out in January 2021.

On October 7, 2021, the Product Integrity Team at Zero met to review the history of the original service campaign as requested by the National Highway Traffic Safety Administration (NHTSA). Based on this meeting, this team concluded that, if the warnings preceding this condition were to be missed by the rider, it could become a safety concern, and recommended the company take steps to voluntarily pursue a safety recall.

Zero Motorcycles is not aware of any accidents or injuries caused by this defect.

Description of Remedy :

Description of Remedy Program : Zero Motorcycles dealers will re-torque the rear rotor bolts to 26 ft-lbs/36 Nm. If there is no damage to the bolts when re-torqued, the rear rotor bolts do not need to be replaced and the existing lock patch will secure them in place. If the bolts are damaged or removed first, then the dealer will replace them. Dealers will then submit a warranty claim for the parts and labor related to the replacement. The labor time for replacement is 0.33 hours.

Owners of the affected Zero Motorcycles should continue to regularly check the proper torque of these rear rotor bolts at the higher value every 4,000 miles or 6 months as required in the maintenance schedule.

Zero Motorcycles has not developed a separate reimbursement plan for this recall because all of the motorcycles are under warranty, and no owner should have paid for this repair out of pocket.

How Remedy Component Differs from Recalled Component : The rear rotor bolt remains the same but is torqued to 26 ft-lbs instead of the original 10 ft-lbs.

Identify How/When Recall Condition was Corrected in Production : Zero Motorcycles increased its torque specification for this bolt to 26 ft-lbs and the change to our manufacturing process was implemented on December 19, 2019.

Recall Schedule :

Description of Recall Schedule : Zero Motorcycles notified its dealer network during the week of October 18, 2021. We expect to notify motorcycle owners no later than the week of November 8, 2021, subject to approval of the owner notification letter by NHTSA.

Planned Dealer Notification Date : OCT 18, 2021 - OCT 25, 2021

Planned Owner Notification Date : NOV 01, 2021 - NOV 12, 2021

* NR - Not Reported