OMB Control No.: 2127-0004

Part 573 Safety Recall Report

21V-865

Manufacturer Name: Yamaha Motor Corporation, USA

Submission Date: JAN 07, 2022 NHTSA Recall No.: 21V-865 Manufacturer Recall No.: 990152



Manufacturer Information:

Manufacturer Name: Yamaha Motor Corporation, USA

Address: 6555 Katella Avenue

Cypress CA 90630-5101

Company phone: 800-962-7926

Population:

Number of potentially involved: 2,462 Estimated percentage with defect: 5 %

Vehicle Information:

Vehicle 1: 2016-2021 Yamaha FJR13

Vehicle Type: MOTORCYCLES

Body Style: OTHER Power Train: GAS

Descriptive Information: In affected motorcycles, when the rider is shifting into second gear under certain

conditions, such as if the throttle is applied before the clutch is fully engaged, causing unusually high rpm, the Engine Control Unit (ECU) will react by limiting the maximum engine speed available. This is due to rev-limiter programming intended to protect

second gear components from abnormal stress. However, this rev-limiter programming may be overly restrictive, possibly preventing the acceleration

performance the rider anticipates, increasing the risk of a crash.

Production Dates: DEC 01, 2015 - AUG 31, 2021

VIN Range 1: Begin: JYARP29E6GA000002 End: JYARP29EXKA000822 ✓ Not sequential VIN Range 2: Begin: JYARP29Y3GA000002 End: JYARP29Y8KA000151 ✓ Not sequential VIN Range 3: Begin: JYARP30E0GA000001 End: JYARP30E8MA001165 **✓** Not sequential VIN Range 4: Begin: JYARP30Y7GA000006 End: JYARP30Y3MA000242 **✓** Not sequential VIN Range 5: Begin: JYARP31Y4JA000003 End: JYARP31Y3LA000092 **✓** Not sequential

Description of Defect:

Description of the Defect: In certain affected motorcycles, when the rider is shifting into second gear under certain conditions, such as if the throttle is applied before the clutch is fully engaged, causing unusually high rpm, the Engine Control Unit (ECU) will react by limiting the maximum engine speed available. This is due to revlimiter programming intended to protect second gear components from abnormal stress. However, this rev-limiter programming may be overly restrictive, possibly preventing the acceleration performance the rider anticipates

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: The side of second gear may not be strong enough to handle high speed loads.

As a result, cracks may occur due to constant stress applied during repeated gear shift operation and, eventually, the gear could break. If this happens, the

transmission and, in turn, the rear wheel, could lock

Description of the Cause: when the rider is shifting into second gear under certain conditions, such as if

the throttle is applied before the clutch is fully engaged, causing unusually high rpm, the Engine Control Unit (ECU) will react by limiting the maximum engine speed available. This is due to rev-limiter programming intended to protect second gear components from abnormal stress. However, this rev-limiter programming may be overly restrictive, possibly preventing the acceleration

performance the rider anticipates

Identification of Any Warning In unmodified units, the ridder may experience difficulty shifting, finding

that can Occur: neutral and false neutrals may occur prior to gear breakage. Customers are

urged not to operate the affected motorcycle until inspection and or

modification is performed

Involved Components:

Component Name 1: ECU

Component Description: Electronic Control Unit

Component Part Number: B96-8591A-10

Component Name 2: ECU

Component Description: Electronic Control Unit

Component Part Number: B96-8591A-50

Component Name 3: ECU

Component Description: Electronic Control Unit

Component Part Number: B96-8591A-51

Component Name 4: ECU

Component Description: Electronic Control Unit

Component Part Number: B96-8591A-80

Supplier Identification:

Component Manufacturer

Name: NR

Address: NR

NR

Country: NR

Chronology:

November 2021, Yamaha Motor corporation USA was informed by the manufacturer, Yamaha Motor Co., LTD that such a condition could exist in previously modified units. This was determined pursuant to quality control review, testing and a review of foreign models that use substantially similar part design.

Units previously modified under campaign 20V813, product previously reworked by the factory prior to sale will only be subject to ECU reprogramming.

Description of Remedy:

Description of Remedy Program: Affected units must have the main axle and drive axle assemblies replaced with the stronger parts and the Engine Control Unit (ECU) reprogrammed to prevent excessive rpm leading to second gear damage. Units previously modified under campaign 20V813, product previously reworked by the factory prior to sale will only be subject to ECU reprogramming.

> If customers have already had and paid for this repair to be performed, may be entitled to receive reimbursement for the cost of obtaining a prenotification remedy of the problem associated with this repair. For more information, contact Yamaha Customer Relations at 1-866-894-1626.

How Remedy Component Differs Second pinion gear is now forged and 2nd pinion on the main axel and 1st from Recalled Component: and 5th wheel gear on the drive axle have a small identification groove machined on them to aid identification

Identify How/When Recall Condition With the start of September 2021 production, the new style forged 2nd was Corrected in Production: pinion gear on the main transmission axel and 1st and 5th wheel gear on the drive transmission axel are and revised ECU programming are used for engine/transmission assembly and unit production

Recall Schedule:

Description of Recall Schedule: We anticipate commencing dealer/consumer notification shortly after

the owner's notification letter is approved by NHTSA, the affected VIN range is ascertained, and the Technical Bulletin's service procedures are confirmed and finalized by Yamaha staff. assuming the Agency can review and approve the customer notification letter within 5 days of receipt (perhaps December 3rd we will have the letter and technical bulletin printed. Normal turnaround time is 3 working days for such a printing. Hence the materials will be ready for mailing approximately December 9th. Final copies of these notification documents will be forwarded to the Agency as soon as possible.

Planned Dealer Notification Date : DEC 09, 2021 - DEC 10, 2021 Planned Owner Notification Date : DEC 09, 2021 - DEC 10, 2021

* NR - Not Reported