



YAMAHA MOTOR CORPORATION, U. S. A.

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May 28, 2020

Recall Management Division
NHTSA/Import & Certification Division/ NVS-223
1200 New Jersey Avenue, SE
Washington, DC. 20590

**Regarding: 20V114; Noncompliance per Federal Motor Vehicle Safety Standard ("FMVSS")
122) Petition for Determination of Inconsequential Noncompliance**

Dear Sirs:

Yamaha Motor Corporation U.S.A. ("Yamaha") is a California corporation with its principal place of business at 6555 Katella Ave., Cypress, CA 90630.

Pursuant to 49 CFR Part 556, Yamaha is petitioning for an exemption from certain class 3-5 motorcycle brake testing, notification and remedy requirements of the National Traffic and Motor Vehicle Safety Act because the noncompliance described below is inconsequential to motor vehicle safety.

This petition relates to Yamaha's noncompliance vehicle notification (20V114), which involves the brake performance testing requirements of FMVSS 122 (Motorcycle Brake Systems), specifically s5.1.7. The requirement for class 3-5 motorcycles is that they be equipped with (a) a parking brake and (b) foot actuated service brake system that operates braking on all wheels. The safety noncompliance report was filed after NHTSA had notified Yamaha that Yamaha's NIKEN, an extremely limited production, narrow twin front wheeled motorcycle which has been designed to perform and react similarly to a traditional two wheeled motorcycle and intended for use primarily by experienced enthusiast motorcyclist, was unable to complete brake system compliance testing due to a question on the motorcycles classification and test procedures. A copy of the 49 CFR part 573 Defect Information Report for 20V114 filing is attached as Attachment A.

Description of the Noncompliance

The two issues noted were the lack of parking brake and the foot brake operating brakes on all wheels. Yamaha has designed the NIKEN to be a narrow-wheeled twin front wheeled motorcycle, meeting the EU, EEC 168/2013 and Canadian C.R.C., c. 1038 motor vehicle safety standards for a traditional 2 wheeled (twin wheel) ride-on, rider active motorcycle. However, the NHTSA classification for motorcycle, in the NIKEN's case, must meet requirements outlined for a specific classification motorcycle. In this case the NHTSA's category 3-3 motorcycle (traditional 2 wheeled) does not make any exception for the narrow-wheeled type like the NIKEN. It must therefore be tested and comply with the category 3-5 motorcycle, a standard that typically includes trikes, a sit-in vehicle that are not rider active, often more akin to automobiles.

Justification for Petition for a Determination of Inconsequentiality

Yamaha believes this technical noncompliance is inconsequential to motor vehicle safety for the following reasons;

NHTSA stated that their contract test laboratory was unable to complete compliance testing because the NIKEN lacked two “requirements”. (1) parking brake (2) foot brake actuating on all wheels. Yamaha independently conducted the relevant compliance testing and the test results demonstrate that the NIKEN substantially satisfies the “requirements” detailed below and in Attachment B and C.

1.A parking brake

- Requirements for a parking brake are presumably in place to keep a vehicle from unwanted movement while in a parked condition, such as on a slope. However, traditional two wheeled and narrow twin front wheeled motorcycles cannot stand unsupported; they simply fall over. Should a traditional motorcycle be parked on a slope (up-hill or down) on the side stand, it is a customary for the rider to park in-gear, locking the vehicle against movement. Likewise, by adapting this standard practice, the NIKEN can be parked on a slope (up-hill or down) on the side-stand just as a rider of a traditional two wheeled motorcycle would be. In an effort to emulate the test environment, the brake system was conditioned, and the engine was disconnected (placed in neutral) in accordance with s6.8; the NIKEN was placed on the test surface on the vehicles main stand. According to requirements in FMVSS 122 the Laden vehicle shall be held stationary for 5 minutes, both in an up-hill and down-hill configuration at the required 18% (10.2°) gradient for 5 minutes. The NIKEN, exceeds this requirement.

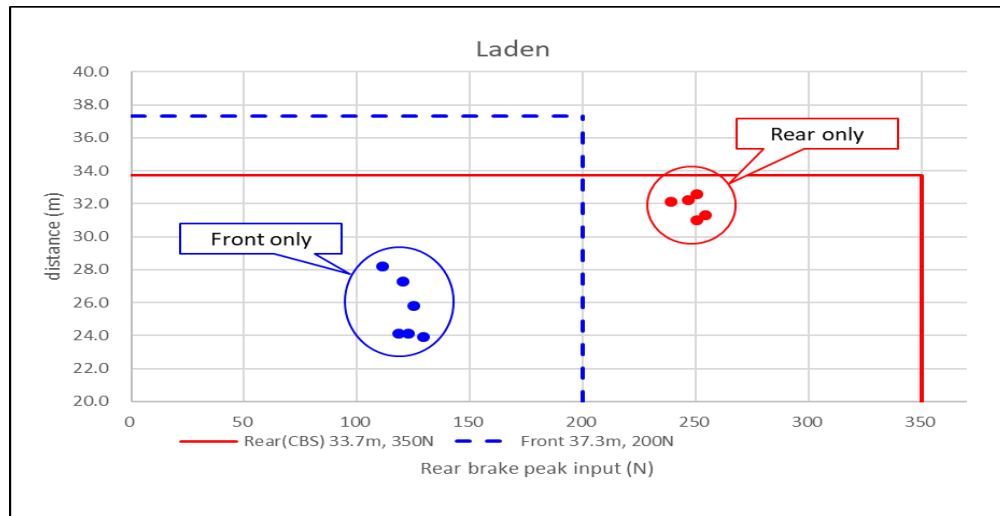
Standard 18% (10.2°)	Up Hill	Down Hill
NIKEN on Main Stand	12.0°	11.8°

It should be noted that approximately 70% of NIKENs currently in use have main stands, the balance have only side stands. Yamaha genuine accessory Main Stands could be added to those without quite easily.

2. A foot brake actuating on all wheels

- Likewise, NHTSA testing staff was unable to complete the testing of braking performance of the “split or CBS” system as the NIKEN utilizes the conventional separate (independently controlled) front and rear braking system found on most similar sport-performance type motorcycles. When Yamaha tested the NIKEN’s, all wheel, anti-lock brake system, we found that the brake system, in a laden condition, met NHTSA’s single actuated brake control test. The NIKEN, in a laden condition, met the requirements with the rear brake alone and, likewise, when tested with the front brake alone, the NIKEN exceeded the standard test requirements and stopping distances. In the lightly loaded condition, the NIKEN exceeded the braking target by a mere 30 cm. However, when the user induced front brake is combined with the NIKEN’s rear brake system, typical of motorcycle rider brake application, this vehicle exceeds NHTSA requirements by considerable margin.

		MASS (kg)			TARGET (m)	RESULT (m)
		FRONT	REAR	TOTAL		
REAR	Lightly loaded	170.7	181.9	352.6	33.7	34.0
	Laden	171.1	289.8	460.9	33.7	31.0
FRONT	Laden	171.1	289.8	460.9	61.4	25.8



- Results show that, the NIKEN substantially meets the performance criteria for brake performance without the Split or CBS braking system, while providing riders the more active control and better brake feel they expect from a performance sport machine.

It is the belief of Yamaha that the information described above satisfies the intent of 49 CFR part 573 and that the operator can safely operate the vehicle. The NIKEN was designed to perform and react similarly to a traditional two wheeled motorcycle primarily for experienced, enthusiast riders, and provides the safety features and performance that these riders expect from a motorcycle.

In the event you should have any questions please do not hesitate to contact the undersigned at 714-761-7842.

Sincerely,

Bradley Franklin
Division Manager, Government Relations and Certification

- Attachments A: 573 report
Attachments B: Parking stability test results
Attachments C: Braking test results

ATTACHMENT A



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

February 27, 2020

Mr. Brad Franklin
Government Relations Manager
Yamaha Motor Corporation, USA
6555 Katella Avenue
Cypress, CA 90630
United States

NEF-107SS
20V-114

Subject: Missing Brake Systems/FMVSS 122/Petition

Dear Franklin,

This letter serves to acknowledge Yamaha Motor Corporation, USA (Yamaha)'s notification to the National Highway Traffic Safety Administration (NHTSA) of a noncompliance with Federal Motor Vehicle Safety Standard number 122, "Motorcycle Brake Systems." Please review the following information to ensure that it conforms to your records. If the information does not agree with your records, please contact us immediately to discuss your concerns.

Makes/Models/Model Years:
YAMAHA/NIKEN/2019

NHTSA Campaign Number: 20V-114

MFR's Report Date: 2/26/2020

Components: PARKING BRAKES
SERVICE BRAKES

Potential Number of Units Affected: 278

Summary:

Yamaha has notified NHTSA that certain 2019 Yamaha Niken motorcycles fail to conform to Federal Motor Vehicle Safety Standard (FMVSS) number 122, "Motorcycle Brake Systems." The motorcycles may be missing the required trike parking brake and integrated rear brake system. Yamaha believes that this noncompliance does not affect vehicle safety.

Consequence:

See Notes

Remedy:

See Notes

Notes:

The manufacturer is petitioning NHTSA for a determination that this matter is inconsequential to motor vehicle safety. The manufacturer is not obligated to conduct an owner notification and remedy campaign until NHTSA has resolved this petition. If the petition is denied, the manufacturer will be notified and must then undertake its notification and remedy campaign obligations.

Under 49 U.S.C. § 30112(a), it is illegal for anyone, including a manufacturer, distributor, dealer, or retailer to sell an item of equipment or vehicle that fails to comply with all applicable Federal motor vehicle safety standards.

Your contact for this recall will be Sarah Shiver who may be reached by phone at 1-202-366-7401, or by email at sarah.shiver@dot.gov. We look forward to working with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Neff". The signature is stylized with a large "J" and "N".

Josh Neff
Chief, Recall Management Division
Office of Defects Investigation
Enforcement

ATTACHMENT B (Parking stability test results)

S6.8.1 Vehicle condition.

- (a) The test is applicable to motorcycle categories 3-2, 3-4 and 3-5.
- (b) Laden.
- (c) Engine disconnected.

S6.8.2 Test conditions and procedure.

- (a) Initial brake temperature. Initial brake temperature is ≤ 100 °C.
- (b) Test surface gradient. Test surface gradient is equal to 18 percent (10.2 deg.).
- (c) Brake actuation force.
 - (1) Hand control : ≤ 400 N
 - (2) Foot control : ≤ 500 N
- (d) For the first part of the test, park the vehicle on the test surface gradient facing up the slope by applying the parking brake system under the conditions specified in this paragraph. If the vehicle remains stationary, start the measurement of the test period.
- (e) The vehicle must remain stationary to the limits of traction of the braked wheels.
- (f) The vehicle must remain stationary to the limits of traction of the braked wheels.

S6.8.3 Performance requirements.

When tested in accordance with the test procedure set out in S6.8.2, the parking brake system shall hold the vehicle stationary for 5 minutes when the vehicle is both facing up and facing down the gradient.

Performance requirements Standard No. 122 S6.8.3:

Laden vehicle shall be held stationary for 5 minutes facing both up-hill and down-hill, at an 18% (10.2°) gradient.

TEST RESULTS:

Of course, a Motorcycle is not self-balancing at a stop, the NIKEN is no different, but if the NIKEN were to be parked on the center stand (main stand) and then the test performed the Yamaha would pass both the up-hill and down-hill performance requirements.

<Main stand with laden>

Down-hill **11.8 deg.** PASS



<Main stand with laden>

Up-hill **12 deg.** PASS



ATTACHMENT C (Braking test results)

FMVSS No. 122

S6.3 Dry stop test—single brake control actuated.

S6.3.1 Vehicle condition.

(b) Laden. For vehicles fitted with CBS and split service brake system, the vehicle is tested in the lightly loaded condition in addition to the laden condition.

(c) Engine disconnected.

S6.3.2 Test conditions and procedure.

(b) Test speed.

(2) Motorcycle categories 3-3, 3-4 and 3-5: 60 km/h or 0.9 V_{max}, whichever is lower.

(c) Brake application. Each service brake system control actuated separately.

(d) Brake actuation force.

(1) Hand control: ≤ 200 N.

(2) Foot control:

(i) ≤ 350 N for motorcycle categories 3-1, 3-2, 3-3 and 3-5.

(ii) ≤ 500 N for motorcycle category 3-4.

(e) Number of stops: until the vehicle meets the performance requirements, with a maximum of 6 stops.

(f) For each stop, accelerate the vehicle to the test speed and then actuate the brake control under the conditions specified in this paragraph.

S6.3.3 Performance requirements.

Vehicles with CBS or split service brake systems: For laden and lightly loaded conditions

3-5 : $S \leq 0.1 V + 0.0077 V^2$, 60km/h: 33.72m

(3-3 Rr: $S \leq 0.1 V + 0.0133 V^2$, 60km/h: 53.88m)

Vehicles with CBS—secondary service brake system (Front brake for NIKEN)

$S \leq 0.1 V + 0.0154 V^2$, 60km/h: 61.44m

TEST RESULT: Rear single brake test

TEST DATE: March 23, 2020

TEST COURSE: Hamaoka Test course

TESTED BY: Brake test group, Kasai, Takeda, Higuchi,

TESTED VEHICLE VIN: JYARN584000000011

TEST RESULT: Front single brake test

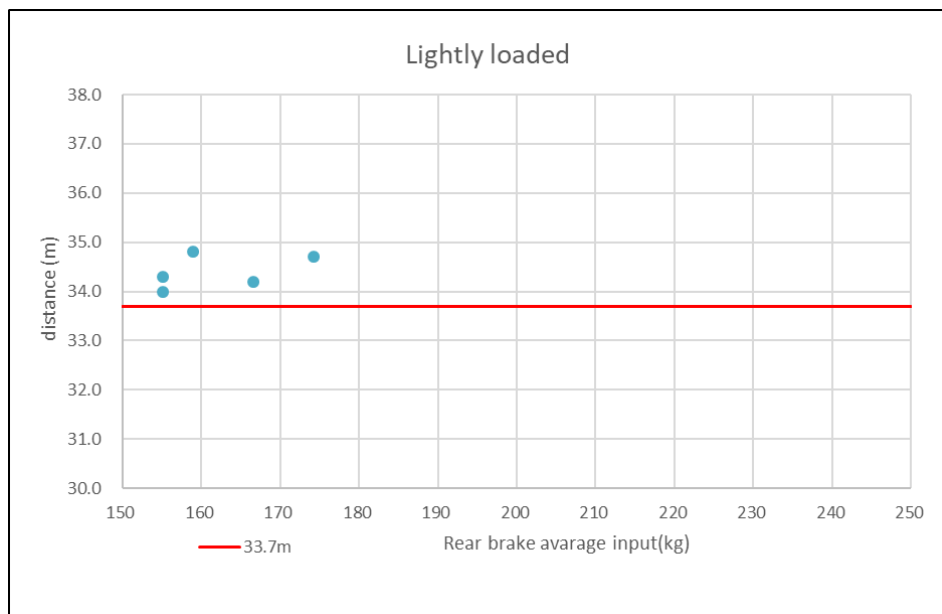
TEST DATE: August 02, 2017

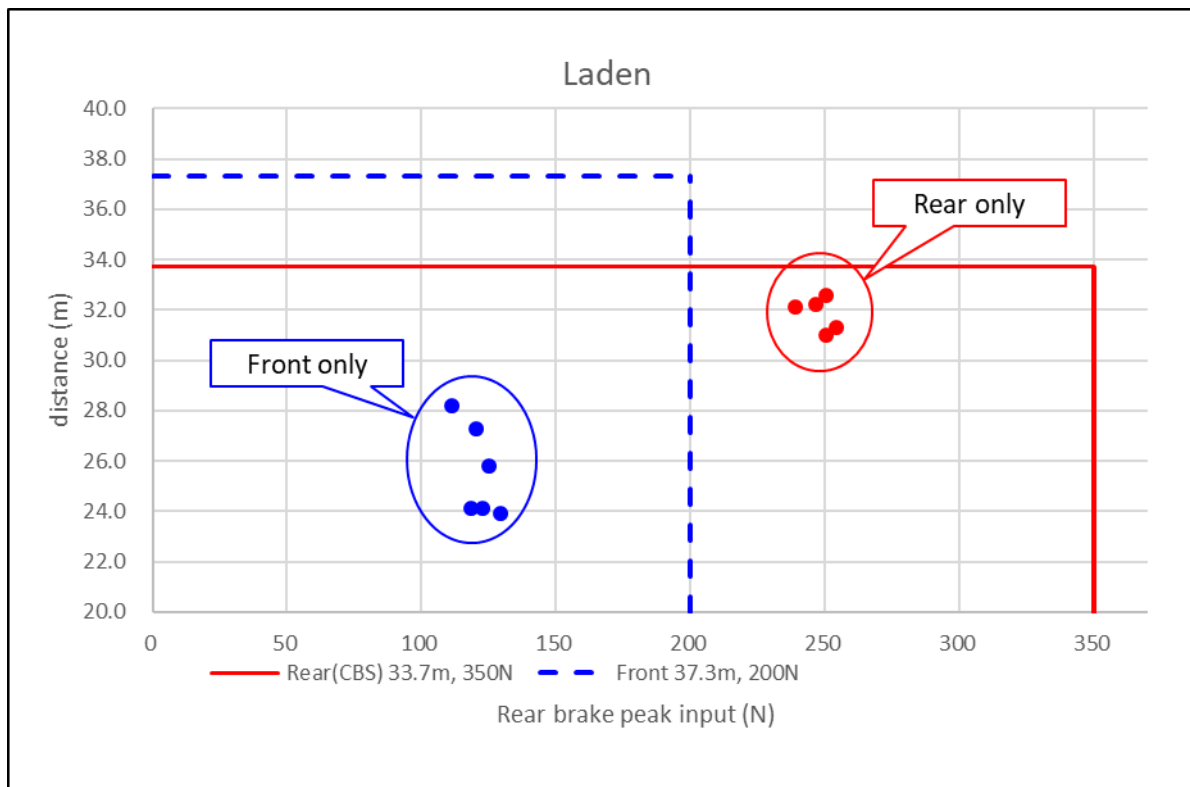
TEST COURSE: Hamaoka Test course

TESTED BY: Brake test group, Makino,

TESTED VEHICLE: 08H0-1B704

		MASS (kg)			TARGET (m)	RESULT (m)
		FRONT	REAR	TOTAL		
REAR	Lightly loaded	170.7	181.9	352.6	33.7	34.0
	Laden	171.1	289.8	460.9	33.7	31.0
FRONT	Laden	171.1	289.8	460.9	61.4	25.8





Part 573 Safety Recall Report

20V-114

Manufacturer Name : Yamaha Motor Corporation, USA

Submission Date : FEB 26, 2020

NHTSA Recall No. : 20V-114

Manufacturer Recall No. : NR



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 : 278

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2019-2019 Yamaha Niken

Vehicle Type : MOTORCYCLES

Body Style : OTHER

Power Train : GAS

Descriptive Information : Yamaha was informed by NHTSA that the Niken did not meet the definition of traditional 2 wheeled motorcycle. subsequently, NHTSA classifies the product as a three wheeled trike and does not posses the required trike parking brake and integrated rear bake system.

Production Dates : AUG 01, 2018 - JUL 31, 2019

VIN Range 1 : Begin : JYARN63Y4KA000301 End : JYARN63Y9KA000410 ☒ Not sequential

VIN Range 2 : Begin : JYARN59Y9KA000005 End : JYARN59YXKA000174 ☒ Not sequential

Description of Noncompliance :

Description of the Noncompliance : Yamaha was informed by NHTSA that the Niken did not meet the definition of traditional 2 wheeled motorcycle. subsequently, NHTSA classifies the product as a three wheeled trike and does not posses the required trike parking brake and integrated rear bake system.

FMVSS 1 : 122 - Motorcycle brake systems

FMVSS 2 : NR

Description of the Safety Risk : No safety risk identified, nonconforming with FMVSS 1222

Description of the Cause : Unit does not meet definition of class 3-3 motorcycle and does not have parking brake or split brake system as required for class 3-5 three-wheeled motorcycles

Identification of Any Warning that can Occur : No safety risk identified, nonconforming with FMVSS 1222

Supplier Identification :**Component Manufacturer**

Name : NR

Address : NR

NR

Country : NR

Chronology :

Yamaha was informed by NHTSA that the Niken doesnot meet the definition of traditional 2 wheeled motorcycle (3-3). NHTSA classifies the product as a three wheeled trike (3-5) and does not posses the required trike parking brake and integrated rear bake system.

Description of Remedy :

Description of Remedy Program : Yamaha was informed by NHTSA that the Niken did not meet the definition of traditional 2 wheeled motorcycle (3-3). Subsequently, NHTSA classifies the product as a three wheeled trike (3-5) as such product in question does not posses the required trike parking brake and integrated rear bake system.

How Remedy Component Differs from Recalled Component : NR

Identify How/When Recall Condition was Corrected in Production : 2020 USA production was halted until petition of inconsequential noncompliance is submitted and issued.

Recall Schedule :

Description of Recall Schedule : We anticipate commencing dealer stop sale notification shortly and will issue an owner's noncompliance notification letter within the time allotted by the Agency. Draft notification letter will be provided for review and approval..

Planned Dealer Notification Date : MAR 02, 2020 - MAR 06, 2020

Planned Owner Notification Date : NR - NR

* NR - Not Reported