



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

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

Investigation: EA19003

Prompted By: PE19002

Date Opened: 10/11/2019

Date 01/16/2025

Closed:

Investigator: Santiago
Maldonado

Reviewer: Joshua Neff

Approver: Tanya Topka

Subject: Steering Oscillation

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: BMW of North America, LLC

Products: 2018-2019 BMW K1600

Population: 980

Problem Description: While the vehicle is operating at highway speeds or decelerating, the front handlebars oscillate and shake violently causing the operator/rider to lose control of the motorcycle, potentially resulting in injury or death.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	20	29	0	0	49	0
Crashes/Fires:	0	0	0	0	0	0
Injury Incidents:	0	0	0	0	0	0
Number of Injuries:	0	0	0	0	0	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

Description of Other:

ACTION/SUMMARY INFORMATION

Action: This (EA) Engineering Analysis is closed without a manufacturer action.

Summary:

On October 11, 2019, the Office of Defects Investigation (ODI) opened Engineering Analysis (EA) 19003 to investigate reports of steering oscillations in model year (MY) 2018-19 BMW K1600 motorcycles. Complainants alleged steering oscillations (wobble and shake) and instability while traveling at highway speeds that were exacerbated while riding in traffic. ODI opened the EA, upgrading its PE19002 investigation, to evaluate the severity and frequency associated with the alleged defect and potential testing options.

ODI sent an Information Request containing several technical questions about testing and simulation that BMW conducted during development and production of the subject vehicles. BMW provided responsive details that were reviewed and analyzed by engineers both in ODI and at NHTSA's Vehicle Research and Test Center (VRTC). BMW provided documentation that confirmed that during the design phase, it had conducted extensive testing and simulations to evaluate and quantify the aerodynamic (wind) loads and overall stability. BMW continues to research aerodynamic improvements that can help reduce effects from turbulent air. In the meantime, to mitigate undesirable effects from aerodynamic loads and other vehicle dynamic forces at excessively high speed, BMW limited the K1600 Grand America variant to approximately 100mph. All produced vehicles of this variant have this speed limitation. Recently, a peer motorcycle was recalled under NHTSA recall number 23V836 for high-speed stability concerns. Like BMW's design for the K1600 Grand America, the recall remedy involved applying a speed restriction.

VRTC, in coordination with ODI, mailed out questionnaires to 98 owners of K1600 motorcycles in the State of Ohio. Questions relevant to the investigation included: time of ownership, accumulated mileage, how owners handled potential issues, service received for potential issues, and any crashes of the subject vehicles. VRTC received 44 responses to the questionnaires from owners of the subject vehicles. Of the 44 questionnaire responses, 10 owners responded that they had experienced some form of motorcycle instability, which was relevant to this EA. Of those 10 owners, all were able to safely adjust to the instability without a vehicle crash or injury.

At this time, no crashes or injuries have been associated with allegations of steering oscillation or instability. This includes 24 complaints that relate to this issue in MY 2018-19 BMW K1600 motorcycles, which ODI reviewed during NHTSA's PE19002 and EA19003 investigations. ODI also reviewed complaints about the subject vehicles, which BMW provided to ODI in the form of Field Reports, Consumer Complaints, and Warranty Claims. ODI reviewed a combined 41 unique complaints (removing duplicate complaints) that alleged instability, and none of the complainants indicated an associated vehicle crash or injury.

The oscillation occurs during high highway speed (well beyond any US-speed limit), and NHTSA received reports that the operators can adjust their speed to regain full control of their motorcycles without a known crash or injury. Based on the available information, NHTSA is closing this investigation without further action. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The Agency reserves the right to take additional action if warranted by future circumstances. To review the ODI reports cited in the Closing Resume ODI Report Identification Number document, go to [NHTSA.gov](https://www.nhtsa.gov).