

DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Denial of Motor Vehicle Defect Petition

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Denial of petition for a defect investigation.

SUMMARY: This notice sets forth the reasons for the denial of a petition submitted by Ms. Miriam Schneider to NHTSA's Office of Defects Investigation (ODI), received on August 2, 2005, under 49 U.S.C. § 30162, requesting that the agency commence a proceeding to determine the existence of a defect related to motor vehicle safety with respect to the performance of the tie rod ends on certain model year (MY) 1999 Volkswagen Passat vehicles not included in two previous safety recall campaigns. After a review of the petition and other information, NHTSA has concluded that further expenditure of the agency's investigative resources on the issues raised by the petition does not appear to be warranted. The agency accordingly has denied the petition. The petition is herein after identified as DP05-003.

FOR FURTHER INFORMATION CONTACT:

Mr. Kyle Bowker, Vehicle Control Division, Office of Defects Investigation,
NHTSA, 400 Seventh Street, SW, Washington, DC 20590. Telephone: (202) 366-9597.

SUPPLEMENTARY INFORMATION:

On August 2, 2005, ODI received a petition submitted by Ms. Miriam Schneider of Olney, MD requesting an investigation of allegedly defective tie rods in certain MY 1999 Volkswagen Passat vehicles not included in two previous safety recall campaigns

(identified henceforth as the subject vehicles). In a September 1999 letter, Volkswagen of America, Inc. (VW) notified the agency that an undetermined percentage of MY 1998-1999 Volkswagen Passat and Audi A4, A6, and A8 vehicles contained a safety-related defect affecting the tie rods in the steering system. VW indicated that it was possible that some tie rods would not seal properly which could allow moisture and dust particles to enter the swivel bearing mechanism, resulting in premature wear. The approximately 22,200 Volkswagen and 29,700 Audi vehicles affected by this recall (identified by NHTSA Recall No. 99V-248) were built from January 1998 through July 1998 and fell within a specific Vehicle Identification Number (VIN) range.

In November 2000, VW chose to expand the scope of the recall (identified by NHTSA Recall No. 00V-414) after it determined that some potentially defective tie rods may have been installed in an additional 44,000 Volkswagen and 39,000 Audi vehicles built from August 1998 through April 1999. These subject recall actions were not influenced by ODL. Instead, VW made an independent determination to conduct a recall after German vehicle inspection authorities notified it of "worn" tie rods and factory inspection of some "worn" tie rods revealed improper sealing.

According to a December 2004 report, the petitioner brought her MY 1999 Passat to an authorized Volkswagen dealer for an unrelated recall repair where she was notified by service personnel that, after 59,000 miles traveled, the tie rods "have too much play," and the recommended repairs would not be covered free of charge because her VIN (WVWNA63B1XE499116) was outside the recall range. In June 2005, after 65,400 miles traveled, the petitioner paid \$588.59 to replace worn inner and outer tie rod ends on

both sides of the vehicle. The petition letter specifically requests that the scope of VW's recall be expanded to include the petitioner's vehicle and that she be reimbursed for the cost of the repairs.

There are a total of 191 non-duplicative complaints to ODI and VW that allege premature wear of either one or both outer tie rod ends in the subject vehicles. As of November 18, 2005, ODI is not aware of any allegations of tie rod separations resulting in a loss of vehicle control, crash or injury in the subject vehicles.

The steering system converts rotary motion of the steering wheel (input) into a turning motion of the vehicle's steered wheels to effect directional control (output). In the subject vehicles tie rods are used to transmit force from both ends of the rack and pinion gearbox to the steering arm at each front wheel. Each tie rod is affixed to the steering arm via a spherical bearing enclosed in a steel body (known as the outer tie rod end) and a bolt. The bearing is protected by a rubber boot that is intended to prevent the intrusion of dirt, dust, water, and other environmental particles that could contaminate the bearing and cause corrosion and accelerated wear of the ball and socket joint.

In February 1998, VW began using aluminum tie rod ends for both vehicle production and service replacement parts in an effort to reduce weight. VW initiated recall 99V-248 after it determined that the aluminum tie rod ends used in certain MY 1998-99 vehicles were defective. The manufacturer identified a specific production range of vehicles built using aluminum tie rod ends and later expanded the scope (00V-414) to include vehicles built two months before and after this range to ensure that any

vehicle that may have been built using defective aluminum tie rod ends was included in the recall action.

Due to aluminum's low inherent material hardness, rapid and excessive wear of the bearing could result if the integrity of the seal is compromised and the bearing is left exposed to the elements. VW reports that damage to the protective rubber boot may be caused by external forces such as impact or in-use damage, or by improper assembly. Design changes intended to improve sealing (revised boot material) and ease of assembly (introduction of stop ring) were implemented. Additionally, the tie rod end was changed from aluminum to a steel body to improve bearing wear characteristics in the event of boot damage. This revised steel tie rod end entered vehicle production in March 1999 and was the replacement part used in the recall remedy.

According to VW, aluminum tie rod ends show a very different pattern for replacement than the steel parts, as evidenced by analysis of consumer complaints and warranty claims. The defective aluminum tie rod ends were replaced at a much lower mileage range, whereas the steel parts are being replaced at a significantly higher mileage after years of service. Steel tie rod ends show a progression of failure symptoms which is clearly demonstrated and confirmed by the complaint reports identified in response to this petition, the vast majority of which include allegations limited to noise and/or excessive wear necessitating replacement during the course of routine maintenance. The manufacturer recommends periodic inspection of the steering system on the subject vehicles, including the tie rods, every 12 months. Furthermore, VW recommends a more

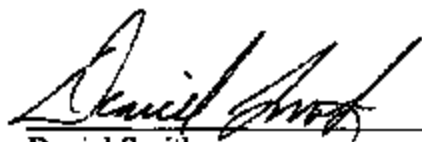
detailed inspection of the tie rod ends (and replacement, if necessary) every 4 years or 40,000 miles traveled.

The petitioner's vehicle was manufactured on June 8, 1999 using the revised steel tie rod ends and therefore was already equipped with the tie rod ends used to remedy defective vehicles in the subject recalls. Analysis indicates that there does not appear to be a safety-related defect trend with respect to the steel tie rod ends used in the subject vehicles.

In view of the foregoing, it is unlikely that NHTSA would issue an order for the notification and remedy of the alleged defect as defined by the petitioner at the conclusion of the investigation requested in the petition. Therefore, in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, the petition is denied.

Authority: 49 U.S.C. 30162(d); delegations of authority at CFR 1.50 and 501.8.

Issued on: DEC 1 2005



Daniel Smith
Associate Administrator
for Enforcement

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