



## **DEPARTMENT OF TRANSPORTATION**

### **National Highway Traffic Safety Administration**

**[Docket No. NHTSA-2020-0009]**

#### **Denial of Motor Vehicle Defect Petition, DP16-002**

**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 on September 28, 2015, by Mr. Matthew Oliver, Executive Director, North Carolina Consumers Council, Inc. (NCCC), to NHTSA's Office of Defects Investigation (ODI). The petition requests that the agency commence a proceeding to evaluate the scope and effectiveness of two recalls for brake master cylinder leakage issued by Nissan for model year (MY) 2007 and 2008 Nissan Sentra vehicles. The petitioner submitted a narrative indicating master cylinder failure for one MY 2008 Nissan (VOQ 1010805749) along with four (4) other owner complaints found in NHTSA's complaint database. The Petitioner alleges that these five complaints indicate insufficiency of effectiveness and scope for the recall actions. For the reasons set forth below, NHTSA disagrees. NHTSA will continue to monitor the situation, but 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 hereinafter identified as DP16-002.

**FOR FURTHER INFORMATION CONTACT:** Mr. Brian E. Smith, Vehicle Defects Division - B, Office of Defects Investigation, NHTSA, 1200 New Jersey Ave. SE, Washington, DC 20590, telephone (202) 366-6975.

**SUPPLEMENTARY INFORMATION:** By letter received on September 28, 2015, Mr. Matthew Oliver of Raleigh, NC, submitted a petition requesting that the agency investigate the scope and effectiveness of two recalls for brake master cylinder leakage issued by Nissan for model year (MY) 2007 and 2008 Nissan Sentra vehicles. The petition was based on one incident of a MY 2008 Nissan Sentra master cylinder developing a slow leak for several years prior to the submission of the petition. According to the petition, the failed vehicle was inspected by a repair facility and brake fluid was found inside the brake booster, as was the case in the failures described in Nissan Recalls 08V-311 and 09V-431.

On December 20, 2016, ODI opened a Defect Petition (DP16-002) to further review the issue raised in the petitioner's letter.

The following is a summary of the reviews and analysis conducted during DP16-002:

- Review of VOQ complaints identified in the petition: The petitioner identified four other complaints in the petition letter. Each of these VOQ complaints will be addressed individually.
  - VOQ 10299791 - This VOQ for a 2008 Nissan Sentra described three replacements of the master cylinder for leakage. Some of the repairs may have occurred under warranty prior to recall remedy availability. This vehicle is part of the recall population and did receive the recall remedy. All of the replacements occurred in the first two years of vehicle use. ODI could not determine if any of the reported failures involved a remedy replacement part.
  - VOQ 10449038 - This VOQ for a 2008 Nissan Sentra mentions a fire in proximity to the master cylinder area under the hood. Fire is not indicated as an outcome for the failure addressed by the recalls. The complaint describes engine stalling prior

to the fire event. The vehicle was sold with a salvage title prior to the fire event, according to Carfax. The vehicle is part of the recall population and did receive the recall remedy.

- VOQ 10567372 – This VOQ is for a 2008 Nissan Sentra which falls outside of the recall population. The failure occurred six years into the life of the vehicle.
- VOQ 10638813 – This VOQ is for a 2008 Nissan Sentra which is included in the recall population and received the recall remedy. The complaint was filed by a subsequent owner four years after the remedy was performed.
- Review of additional VOQ complaints - ODI identified two more VOQ complaints responsive to this defect petition. One complaint vehicle (10839357) was repaired under the recall in 2008 and had a master cylinder failure eight years later in 2016. The second complaint vehicle (10330891) suffered a second master cylinder failure within two years after the recall repair.
- ODI review of Nissan data - ODI requested and received data from Nissan detailing the original defect determination. They also provided warranty trend data for the recalled vehicles and for vehicles produced after the production change which delimited the end of the recall population.
  - Improper machining of the internal seal groove – Nissan identified a production machining process for the bore of the master cylinder body which sometimes resulted in chattering and an uneven surface of the internal seal groove. Nissan supplier Bosch implemented manufacturing changes in early 2008 to prevent this condition.

- Mold changes for the isolation seal – The specifications and tolerances for the isolation seal were updated to produce better sealing of the master cylinder. The improved seal was introduced into production on April 18, 2008. This date marks the end of the recall vehicle population.
- Warranty Data – ODI reviewed the incident rate and warranty data for the vehicle populations affected by the recall and vehicle populations produced after the final production changes were implemented. The recall populations show a significant spike in incident rates during the first three years of vehicle service. The vehicles produced after the production fix fail at a much lower rate and do not exhibit the premature failure spikes found in the recall population.
- Presence of a warning light – The master cylinder is equipped with a fluid level sensor which will alert the driver to a slow leak. A warning light on the instrument panel will illuminate when the fluid is at a low but safe level. If the driver does not take action to remedy the low fluid either by adding fluid or getting the master cylinder fixed, reduced braking could result.

## **Conclusion**

Nissan conducted safety recalls 08V-311 and 09V-431 to remedy leaking master cylinders on certain MY 2007 and 2008 Nissan Sentra vehicles. The recall populations were determined based on production changes to the master cylinder which were fully implemented as of April 18, 2008.

ODI identified two MY 2008 Nissan Sentra complaints, including the petitioner's vehicle, which were not covered by the recalls and reported a leaking master cylinder. All of these incidents occurred six or more years into the service life of the vehicle. ODI also identified three

complaints which reported a master cylinder leaking after receiving the recall remedy. Only one of these failures occurred within 36 months of the recall remedy. The original recall addressed failures which occurred early in the life of the vehicle, and involved elevated incident rates during the first 36 months of vehicle service. Master cylinders are generally expected to experience wear and display a finite service life.

After a review of the available data, including a thorough search of NHTSA's complaint database, the agency has not identified a trend that would call into question the scope or adequacy of Nissan's recalls. Accordingly, and in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, ODI is denying the petition. A detailed summary of ODI's analysis of this petition will be published in the Federal Register and is also available in the investigative file for this action.

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

**Jeffrey Mark Giuseppe,**

*Associate Administrator for Enforcement.*

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