

VOLKSWAGEN

GROUP OF AMERICA

Jeffrey Quandt
Chief, Vehicle Control Division
Office of Defects Investigation
U.S. Department of Transportation
National Highway Traffic Safety Administration
1200 New Jersey Avenue S.E.
Washington, DC 20590

CHRISTOPHER T. SANDVIG NAME
GM – COMPLIANCE / TREAD TITLE
PRODUCT COMPLIANCE DEPARTMENT
248-754-5000 PHONE
248-754-5093 FAX
SEPTEMBER 30, 2011 DATE

Subject: PE11-023 - Allegations of Fuel Leakage from Fuel Rail Assemblies -
NVS-213hkb

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

Dear Mr. Quandt:

Please find attached Volkswagen's partial response to your letter dated August 17, 2011 requesting information concerning fuel leakage from the common rail assembly, including all associated injector lines, injectors and fittings, on 2011 MY Volkswagen Jetta vehicles equipped with the TDI Clean Diesel engine.

Per your request, the enclosed information is inclusive of 2009-2011 MY Volkswagen and Audi vehicles equipped with the TDI Clean Diesel engine (Volkswagen Jetta, Volkswagen Golf and Audi A3) manufactured and sold to Volkswagen Group of America, Inc. for resale or lease in the United States.

Volkswagen's response to Questions 1-5 contained within PE11-023, is forwarded in conjunction with Volkswagen's Notification of Voluntary Recall, 2009 – 2012 MY Volkswagen Jetta, 2010 – 2012 MY Volkswagen Golf and Audi A3 - Diesel Fuel Injection Lines, per our phone conversation of Monday, September 26, 2011.

For your convenience, each request is restated verbatim and then followed by our response.

Please contact me if you have any questions regarding this response.

Sincerely,



Christopher T. Sandvig
General Manager - Compliance/TREAD
Service and Quality

Attachments

Request 1

State, by model and model year, the number of subject and peer vehicles VW has manufactured for sale or lease in the United States. Separately, for each subject and peer vehicle manufactured to date by VW, state the following:

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Date of manufacture;
- f. Date warranty coverage commenced; and
- g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection.

Response 1

In response to your inquiry, Volkswagen has identified the following number of 2009-2011 Model Year (MY) Jetta, 2010-2011 MY Golf and 2010-2011 MY Audi A3 vehicles manufactured and sold to Volkswagen Group of America, Inc. for resale or lease in the United States that were equipped with a TDI Clean Diesel engine:

Subject Vehicles	MY 2009	MY 2010	MY 2011
VW Jetta	37,889	53,088	42,477
VW Golf	-	4,446	9,068
Audi A3	-	2,180	3,791

Please see Microsoft Excel file entitled "PRODUCTION DATA.xlsx" for responses to subparagraphs a) through g), in the folder attached hereto as Exhibit to Request 1.

Source: Business Objects Vehicles Universe

Date Gathered: Through September 30, 2011

Exhibit to Request 1

Data is provided labeled as "PRODUCTION DATA.xlsx" in Microsoft Excel format in the Exhibit to Request 1 folder on the PE11-023 Data Collection Disc

Request 2

State the number of each of the following, received by VW, or of which VW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and peer vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where VW is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which VW is or was a defendant or codefendant.

For subparts “a” through “d,” state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items “c” through “f,” provide a summary description of the alleged problem and causal and contributing factors and VW’s assessment of the problem, with a summary of the significant underlying facts and evidence. For items “f” and “g,” identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Response 2

Volkswagen notes that the following responses to subparagraphs “a” through “f” include multiple reporting about the same underlying incident; these counts may not be added together because a false total count would result.

a) In response to this inquiry, Volkswagen has identified **5** consumer complaints involving an injector fuel line related to the alleged defect in the subject vehicles.

b) In response to this inquiry, Volkswagen has identified **91** field reports involving an injector fuel line related to the alleged defect in the subject vehicles

c) In response to this inquiry, Volkswagen has not received any reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports.

d) In response to this inquiry, Volkswagen has not identified any property damage claims.

e) In response to this inquiry, Volkswagen has not identified any third-party arbitration proceedings where VW is or was a party to the arbitration.

f) In response to this inquiry, Volkswagen has not identified any lawsuits, pending or closed, in which VW is or was a defendant or codefendant.

Source: Business LISTEN, PL, FRED, TACS

Date Gathered: Through the date of the inquiry

Request 3

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

- a. VW's file number or other identifier used;
- b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle's VIN;
- e. Vehicle's make, model and model year;
- f. Vehicle's mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether a crash is alleged;
- j. Whether property damage is alleged;
- k. Number of alleged injuries, if any; and
- l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Response 3

Responses to subparagraphs a) through l) is provided in the document entitled, REQUEST NUMBER TWO DATA.xlsx in the folder attached hereto as Exhibit to Request 3. These cases are organized by category then by case number.

Source, Date Gathered: See Response 2

Exhibit to Request 3

Data is provided labeled as “REQUEST NUMBER TWO DATA.xlsx” in Microsoft Excel format in the Exhibit to Request 3 folder on the PE11-023 Data Collection Disc

Request 4

Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method VW used for organizing the documents.

Response 4

In response to this inquiry, Volkswagen is providing copies of documents identified for each item in Response 2. The documents are provided in Adobe Acrobat format, entitled "REQUEST NUMBER FOUR DATA.pdf", in the folder attached hereto as Exhibit to Request 4. The cases are organized by category, then by case number.

Source, Date Gathered: See Response 2

Exhibit to Request 4

Data is provided labeled as "REQUEST NUMBER FOUR DATA.pdf" in Adobe Acrobat format in the Exhibit to Request 4 folder on the PE11-023 Data Collection Disc

Request 5

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by VW to date that relate to, or may relate to, the alleged defect in the subject and peer vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. VW's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Response 5

In response to this inquiry, Volkswagen has identified **434** warranty claims (**433** unique VINs) involving injector fuel line #2 related to the alleged defect in the subject vehicles. Volkswagen notes that **8** of these claims are duplicative of the provided VOQs; **5** are duplicative of consumer complaints and **61** are duplicative of field reports.

Volkswagen notes that in some cases the warranty claim administrator's interpretation of technician comments may state other fuel related components were replaced, however in all claims attached, it is the injector fuel line #2 that has been replaced (based on replacement part number).

Information for these claims is provided in Microsoft Excel format, entitled "WARRANTY DATA.xlsx", in the folder attached hereto as Exhibit to Request 5. The claims are organized by claim number.

Exhibit to Request 5

Data is provided labeled as "WARRANTY DATA.xlsx" in Microsoft Excel format in the Exhibit to Request 5 folder on the PE11-023 Data Collection Disc.

PE11-023

VW

9/30/2011

23J9 V5 NHTSA 573 - Signed

093011

RECEIVED

By Recall Management Division at 9:42 am, Oct 03, 2011

VOLKSWAGEN

GROUP OF AMERICA

Mr. Claude H. Harris
Acting Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attention: Recall Management Division (NVS-215)
1200 New Jersey Avenue, S.E.
Washington, DC 20590

CHRISTOPHER T. SANDVIG NAME
GENERAL MANAGER COMPLIANCE/TREAD TITLE
PRODUCT COMPLIANCE DEPARTMENT
248-754-5000 PHONE
248-754-5093 FAX
SEPTEMBER 30, 2011 DATE

Subject: Notification of Voluntary Recall
2009 – 2012 Model Year Volkswagen Jetta & Jetta SportWagen
2010 – 2012 Model Year Volkswagen Golf
2010 – 2012 Model Year Audi A3
Diesel Fuel Injection Lines

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

Dear Mr. Harris:

This information is submitted in accordance with the requirements of Part 573 of Title 49 of the Code of Federal Regulations (49 CFR 573 (2011)).

573.6 (c) (1) **Manufacturer's Name**
Volkswagen de Mexico, A.A. de C.V.
Volkswagen AG
Audi AG

Importer
Volkswagen Group of America, Inc. (VWGoA)

573.6 (c) (2) **Identification of Vehicles**

Make	: Volkswagen, Audi
Line	: Volkswagen Jetta (5 th and 6 th Generation) Volkswagen Jetta SportWagen Volkswagen Golf (6 th Generation) Audi A3
Model Year	: 2009 – 2012 Volkswagen Jetta and Jetta SportWagen 2010 – 2012 Volkswagen Golf 2010 – 2012 Audi A3
Month/Year of Manufacture	: Jetta/Jetta SportWagen - May 2008 through September 2011 Golf - May 2009 through September 2011 A3 - September 2009 through September 2011

VIN Numbers

of Affected Vehicles: Jetta/Jetta SportWagen: 3VW___1K_9M000027 – 3VW___1K_9M366373
and 3VW___AJ_AM004684 – 3VW___AJ_CM63015
Golf: WWW___AJ_AW000338 – WWW___AJ_CW103700
A3: WAU___FM_AA044013 – WAU___FM_CA058055

Other Identification: Vehicles equipped with a 2.0l TDI Common Rail Diesel engine / Clean Diesel engine (codes CJAA and CBEA)

573.6 (c) (3) **Number of Vehicles Potentially Containing the Defect**

Approximately 161,144 Volkswagen and 7,131 Audi vehicles equipped with a 2.0l TDI Common Rail Diesel engine / Clean Diesel engine are affected by this recall in the United States.

573.6 (c) (4) **Percentage of Vehicles Actually Containing the Defect**

Volkswagen is unable to determine an exact percentage of vehicles affected by the defect; however the overall affected rate is expected to be less than 1%.

Approximately 20% of the vehicles affected by this recall, built during certain production months, were equipped with fuel injection lines that have material contributory to a potential failure.

573.6 (c) (5) **Description of Defect**

In U.S. specific application of the 2.0L TDI Common Rail Diesel engine/ Clean Diesel engine (engine codes CJAA and CBEA; emissions related de-NOx and de-SOx regeneration cycles) the fuel injection pulses could coincide with the natural frequency of the injector line #2 in specific load and RPM conditions. This resonance creates additional stress on the fuel line which a small number of parts (based on the statistic spread of line strength) cannot withstand over lifetime.

As a contributory factor, one supplier has used tube material with scratch marks from a grinding process during certain production periods which were installed in vehicles during the following production months: December 2008, January-February 2009, April 2010 and October-December 2010. Injector lines using this material exhibit a significantly higher failure rate.

Due to the possible resonance condition, single fuel injection lines could develop small cracks which could lead to fuel leakage. Leaking fuel, in the presence of an ignition source, may lead to a fire.

Volkswagen is not aware on any fire, crash or injury caused by this issue.

573.6 (c) (6) **Basis for Determination**

- In February/March 2010, Volkswagen conducted a warranty return parts analysis based on single reports on fuel leakage incidents. Analysis concluded that the lines were not leaking when being pressure tested on a test bench and suspected leakage coming from loose fittings. Analysis of the fastening torque in the field confirmed the fittings to be properly secured. Analysis was terminated with no trouble found.
- As no cause was found, but field failures continued, Volkswagen Group of America, Inc. informed Volkswagen AG in February 2011 about fuel leakage at fuel injector lines at the 2.0L TDI Clean Diesel engine.
- In March/April 2011, a hypothesis was established that mechanical stress could have caused fatigue fractures of the affected fuel line. The cause for the mechanical stress however could not be found at that time. Material analysis revealed certain contributory microscopically scratch marks on failed parts with tube material from one

specific sub-supplier. However, all fatigue measurements and evaluations showed that the fuel injector line also from that one sub-supplier was built fatigue endurable

- In June/July 2011, Volkswagen identified certain U.S. application specific emissions related regeneration modes for the NOx storage catalyst as being causal for the possible resonance on fuel injection line #2.
- During August and September of 2011, additional analyses and engine testing confirmed that only injector line #2 was actually affected (and not the lines 1, 3 and 4) because the natural frequency of line #2 is within the range of the frequency created by fuel injection pulses during U.S. application specific operating modes (de-NOx and de-SOx regeneration cycles) and within a specific RPM range.
- Based on this information, on September 23, 2011 the matter was presented to the product safety committee at Volkswagen AG for assessment and determination. The committee decided to conduct a recall.

Date of Determination: September 23, 2011

573.6 (c) (7) **Noncompliance Test Result**

Not applicable

573.6 (c) (8) **Proposed Remedial Program**

When sufficient quantities of vibration dampers and #2 fuel injection lines are available, Volkswagen and Audi plan to notify all owners of affected vehicles and will instruct them to arrange for an appointment with an authorized dealer.

On vehicles produced during December 2008, January and February 2009, April, October, November and December 2010, the #2 fuel injection line will be replaced. In addition, on all four fuel injection lines on these vehicles, vibration dampers will be installed as a precautionary measure.

All fatigue measurements and evaluations showed that the fuel injector lines 1, 3 and 4 are built fatigue endurable. However, because the vehicles will be in the workshop for this recall and the additional installation of the vibration dampeners on lines 1, 3 and 4 can easily be done, Volkswagen has decided to apply this measure to all four fuel injection lines. This approach will make sure that cylinder 2 gets vibration dampeners installed, avoiding potential misunderstandings by workshop personnel in identifying line #2.

All vehicles produced in other production months are equipped with fuel injection lines with proper fuel line material. These vehicles will get vibration dampeners installed on all four fuel injection lines.

Pending parts availability, mailing dates are anticipated as follows:

Dealers: November 2011

Owners: November 2011

573.6 (c) (9) **Submission of Communications**

A representative copy of all bulletins and other communications sent to dealers and owners will be submitted within five (5) days of dealer/owner notification.

573.6 (c) (10) **Proposed Owner Letter**

A draft owner's letter will be submitted to the agency for review and approval.

573.6 (c) (11) **Manufacturer's Recall Code**

Volkswagen has assigned the code 23J9/V5 for Volkswagen vehicles affected by this recall and 23J8/K5 for Audi vehicles affected by this recall.

Sincerely,



Christopher T. Sandvig
General Manager Compliance/TREAD