

INFORMATION REDACTED PURSUANT TO THE FREEDOM
OF INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)



October 3, 2019

Jeff Quandt
Office of Defects Investigation
National Highway Traffic Safety Administration
W48-312, NEF-104
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Quandt:

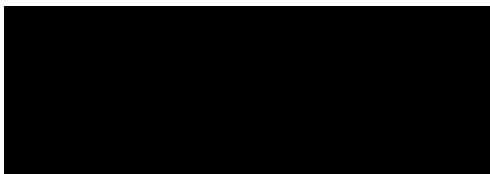
Subject: **Jaguar Land Rover Response to RQ19-004**

Attached please find Jaguar Land Rover's response to RQ19-004.

Jaguar Land Rover notes that certain documents contained in the attachments to Questions 8, 10g, 11c-e, and 15 contain Confidential Business Information and a confidentiality request has been sent to NHTSA's Office of Chief Counsel per 49 CFR Part 512 under separate cover.

Please call me at 201-818-8034 if you have any questions.

Sincerely,



John Kobylarz
Safety Compliance Manager
Jaguar Land Rover North America, LLC

Attachment

JAGUAR LAND ROVER NORTH AMERICA, LLC
100 JAGUAR LAND ROVER WAY, MAHWAH, NJ 07495
1-800-FIND 4WD LANDROVERUSA.COM
1-800-4 JAGUAR JAGUARUSA.COM

JAGUAR LAND ROVER RESPONSE TO RQ19-004

This is Jaguar Land Rover's response to the preliminary evaluation request RQ19-004. The enquiry letter requests Jaguar Land Rover to investigate allegations of fuel leakage from the fuel tank outlet flange in model year (MY) 2010 through 2012 Jaguar XF vehicles manufactured by Jaguar Land Rover. For the investigation, we have considered all received reports from the USA alleging or reporting fuel leaks or odours associated with the fuel pump outlet flange. Documents submitted in support of this response may mention other parts of the fuel tank and fuel system and/or other vehicle systems.

Where supporting evidence is supplied to answer a specific question, this is provided in appendices aligned to the specific question being responded to. If the same evidence supports two or more question responses, it will be duplicated in the corresponding appendices, to aid clarity for the reader in understanding the response.

Jaguar Land Rover's response to this Recall Query information request was prepared pursuant to a diligent search for the information requested.

The scope of Jaguar Land Rover's investigation conducted to locate responsive information focused on Jaguar Land Rover employees most likely to be knowledgeable about the subject matter of this inquiry and on review of Jaguar Land Rover files in which responsive information ordinarily would be expected to be found and to which Jaguar Land Rover ordinarily would refer. Jaguar Land Rover notes that although electronic information was included within the scope of its search, Jaguar Land Rover has not attempted to retrieve from computer storage electronic files that were overwritten or deleted. As the agency is aware, such files generally are unavailable to the computer user even if they still exist and are retrievable through expert means. To the extent that the agency's definition of Jaguar Land Rover includes suppliers, contractors and affiliated enterprises for which Jaguar Land Rover does not exercise day-to-day operational control, we note that information belonging to such entities ordinarily is not in Jaguar Land Rover's possession, custody or control.

Jaguar Land Rover has construed this request as pertaining to vehicles manufactured for sale in the United States and federalized territories.

The definition provided in the NHTSA letter of July 29, 2019 in relation to what constitutes peer vehicles (to the 2010 to 2012 MY Jaguar XF) was broad. In order to ensure that information which pertains to peer vehicles, the following is used to determine a peer vehicle.

- Same design principle of integrated in-line fuel filter.
- Same material used in the manufacture of the outlet flange
- Same or similar number of outlet points

This provides the following vehicle lines as Peer vehicles:-

- F-TYPE (X152)
- LR4 (L319)
- RANGE ROVER (L322)
- RANGE ROVER (L405)
- RANGE ROVER SPORT (L320)
- RANGE ROVER SPORT (L494)
- XF (X250)
- XJ (X351)

Jaguar Land Rover notes that some of the information being produced pursuant to this inquiry may contain personal information such as customer names, addresses, telephone numbers, and complete Vehicle Identification Numbers (VINs). Jaguar Land Rover is producing such personal information in an unredacted form to facilitate the agency's investigation with the understanding that the agency will not make such personal information available to the public under FOIA Exemption, 5 U.S.C. 552(b)(4) and (b)(6).

Answers to your specific questions are set forth below. As requested, after each numeric designation, we have set forth verbatim the request for information, followed by our response. Unless otherwise stated, Jaguar Land Rover has undertaken to provide responsive documents dated up to and including August 15, 2019, the date of your inquiry. Jaguar Land Rover has searched within the following Jaguar Land Rover offices for responsive documents: Automotive Safety & Compliance Office, Purchasing, Marketing Sales and Service, Quality, Office of the General Counsel, Vehicle Operations, and Product Engineering.

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

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Date of manufacture ;
- f. Date warranty coverage commenced;
- g. Subject component part number installed at the time of initial sale;
- h. United States state or territory where the vehicle was originally sold or leased (or delivered for sale or lease);

For subject vehicles included in the scope of the subject recalls, provide the following additional information:

- i. Applicable recall number (12V-521 or 16V-187);
- j. Recall completion date;
- k. Recall completion mileage; and
- l. Name, address and dealer code of the dealer who performed the subject recall remedy repairs.

Provide this information separately
in Microsoft Access 2010, or a compatible format, entitled "RQ 19-
004 PRODUCTION DATA."

Response 1

Jaguar Land Rover records indicate that the approximate total number of vehicles subject and peer through manufactured for sale in the United States (the 50 states and the District of Columbia) and its protectorates and territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands) is two hundred and seventy two thousand four hundred (272,400).

The data tabulated below covers Jaguar Land Rover vehicles built for sale in the United States (the 50 states and the District of Columbia) and its protectorates and territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands), broken down by model and model year.

Vehicle Line	Model Year					
	2010	2011	2012	2013	2014	2015
F-TYPE (X152)	0	0	0	0	4032	3925
LR4 (L319)	5602	9172	8864	7296	3620	6097
RANGE ROVER (L322)	8710	11090	9549	0	0	0
RANGE ROVER (L405)	0	0	0	5352	18827	13097
RANGE ROVER SPORT (L320)	11085	16823	11455	16828	0	0
RANGE ROVER SPORT (L494)	0	0	0	0	23549	16026
XF (X250)	8221	7179	6286	5595	2138	4325
XJ (X351)	75	8928	5148	5569	3733	4204

1) a to h

Appendix 1 includes an Excel spreadsheet filenames: [RQ 19-004 PRODUCTION DATA] which lists the requested vehicle information for each subject vehicle.

Responses to subparts a, b, c, d, e, f, g and h are shown on tab 1 (1a – h)

Responses to subparts i, j, k and l are shown on tab 2 (1i-l). This tab lists all claims processed relating to the Jaguar Land Rover recalls J027 and J069, NHTSA references 12V-521 or 16V-187.

Question 2

2. State the number of each of the following, received by JLR, or of which JLR 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;
- d. Reports involving a fire;
- e. Property damage claims;
- f. Third-party arbitration proceedings where JLR is or was a party to the arbitration ; and
- g. Lawsuits, both pending and closed, in which JLR is or was a defendant or codefendant.

For subparts "a" through "f/g," 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/g," provide a summary description of the alleged problem and causal and contributing factors and JLR's assessment of the problem, with a summary

of the significant underlying facts and evidence. For items "e/f" and "f/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

Jaguar Land Rover is providing information in response to this as follows:

2 a

The total number Consumer complaints, including those from fleet operators is thirty seven (37).

Noted that within the data collected from the respective computer system in which the data is located, dealer technical support hotline reports and customer complaint data is treated, from an output, as one source system.

2 b

The total number of Field reports, including dealer field reports is thirty two (32).

2 c

The number of 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 is zero (0).

2 d

The number of reports involving a fire is one (1). The claim is provided with file name 12.02.2017 letter from J. Jones to Jaguar in the Legal Claims SUBJECT VEHICLES folder.

2 e

The number of property damage claims (as defined by 49 CFR 579.4) is one (1). The circumstances surrounding this report are contained within claim received by Jaguar Land Rover North America on December 8, 2017. There is an absence of technical evidence associated with this claim and therefore is has not been possible to provide any commentary surrounding this one case. As there is no information from which to provide any detailed description of the alleged problem and causal and contributing factors and Jaguar Land Rover's assessment of the problem, with a summary of the significant underlying facts and evidence. The claim is provided with file name 12.02.2017 letter from J. Jones to Jaguar in the Legal Claims SUBJECT VEHICLES folder.

2 f

The number of third-party arbitration proceedings where Jaguar Land Rover is or was a party to the arbitration is zero (0).

2 g

The number of Lawsuits, both pending and closed, in which Jaguar Land Rover is or was a defendant or codefendant is zero (0).

Question 3

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. JLR'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), street address, email address and telephone number;
- d. Vehicle identification number (VIN) ;
- e. Make, model and model year ;
- f. Mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether leakage of liquid fuel is alleged;
- j. Whether the smell of fuel vapor is alleged;
- k. Whether illumination of the malfunction indicator lamp illumination (check engine light) is alleged;
- l. Whether property damage is alleged;
- m. Number of alleged injuries, if any; and
- n. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "RQ 19-004 REQUEST NUMBER TWO DATA".

Response 3

Jaguar Land Rover records were searched and reviewed for relevance in relation to the alleged defect for both subject and peer vehicles. In summary, the numbers of reports found for subject and peer vehicles is provided below.

Vehicle Line	Count of reports
RANGE ROVER SPORT / L320	9
XF / X250	53
XJ / X351	1
F-TYPE / X152	1
LR4 / L319	4
RANGE ROVER / L405	1

See Appendix Q3 file name: [RQ 19-004 REQUEST NUMBER TWO DATA]

For response 3c, see Appendix Q3 file name: [RQ19-004 REQUEST NUMBER TWO DATA 3c] includes vehicle owner details, where they are available within Jaguar Land Rover records.

Question 4

Produce copies of all documents related to each item within the scope of Request No. 2.

Organize the documents separately for the subject and peer vehicles and by category (i.e., consumer complaints, field reports, etc.) and describe the method JLR used for organizing the documents. Describe in detail the search methods and search criteria used by JLR to identify the items in response to Request No .2.

Response 4

Appendix Q4 Files and associated sub-folders includes copies of all the Enhanced Concern Identification (ECI) reports relating to the vehicles identified in the response to Q2 of this request. These reports were generated within the Jaguar Land Rover CDR-ECI system, which is Jaguar Land Rover's system to gather and analyze vehicle data (including Consumer Complaints and Field Reports), in order to meet TREAD Act Early Warning Reporting obligations. Data from Consumer Affairs and Dealer Technical Support Hotline is routed into the CDR-ECI system. A further search of the Jaguar land Rover Global Concerns Management system (GCM) was completed to provide reports not located through the search of the CDR-ECI system.

The CDR-ECI search was carried out, to establish all potential cases which might involve door latch mechanism malfunction. This was carried out within the Jaguar Land Rover CDR-ECI system, using the symptoms:

damage-cracked/fractured/split; fuel economy-poor; hole incomplete/out of position/omit; improper assembly; leak-failed gasket/seal/weatherstrip; leak-fluid overflow; leak-porosity ; leak/odor-fuel; odor;;

The reports were then searched, using keyword list:

Smell, Odor/ Odour, Leak, Fumes, Cracked, Fracture, Split, Hole, Leak, Flange

The cases responsive to these criteria are included in the submission.

Question 5

State, by model , model year and entry system, total counts for all of the following categories of claims, collectively, that have been paid by JLR 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. JLR's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), street address, email address 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(s);
- h. Problem code(s);

- i. Diagnostic Trouble code(s)
- j. Replacement part number(s) and description(s);
- k. Whether a towing claim was made within seven days of the repair date
- l. Concern stated by customer
- m. Cause as stated on the repair order;
- n. Correction as stated on the repair order; and
- o. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information separately for the subject and peer vehicles in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA - SUBJECT VEHICLES" and "WARRANTY DATA - PEER VEHICLES" See Enclosure, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

Response 5

The following table summarises the counts of claims (as defined in the question above).

Vehicle Line	Model Year					
	2010	2011	2012	2013	2014	2015
LR4 (L319)	59	74	43	23	36	32
Range Rover Sport (L320)	91	139	61	83	0	0
Range Rover (L322)	18	3	6	0	0	0
Range Rover (L405)	0	0	0	16	0	0
Range Rover Sport (L494)	0	0	0	0	0	3
Jaguar XF (X250)	303	57	42	4	2	1
Jaguar XJ (X351)	0	34	10	1	0	1

See file WARRANTY DATA - SUBJECT VEHICLES and WARRANTY DATA - PEER VEHICLES.

For response 5b, see Appendix Q5 Files [WARRANTY DATA 5b] which includes vehicle owner details, where they are available within Jaguar Land Rover records.

Certain vehicles may have experienced more than one incident and have more than one claim associated with their VINs. These claims have been counted separately.

Requests for "goodwill, field or zone adjustments" received by Jaguar Land Rover to date that relate to the alleged defect that were not honored, if any, would be included in the owner reports identified above in response to Request 2. Such claims that were honored are included in the warranty data provided.

Question 6

Describe in detail the search methods and search criteria used by JLR to identify the claims in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used.

Provide a list of all labor operations, labor operation descriptions, problem codes problem code descriptions applicable to the alleged defect in the subject and peer vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

State, by make and model year, the terms of the new vehicle warranty coverage offered by JLR on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that JLR offered for the subject and peer vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

Response 6

The Jaguar Land Rover Analytical Warranty System (AWS) data was downloaded for the subject and peer vehicles. The data was searched for claims related to the part number identified in response to Question 14.

The search included all of the subject 2010 to 2012 Model Year Jaguar XF and peer vehicles. Peer vehicles being 2013 to 2015 Model Year:-

- F-TYPE (X152)
- LR4 (L319)
- RANGE ROVER (L322)
- RANGE ROVER (L405)
- RANGE ROVER SPORT (L320)
- RANGE ROVER SPORT (L494)
- XF (X250)
- XJ (X351)

The information relates to vehicles manufactured for sale or lease in the USA and federalised territories (US, Guam, Puerto Rico, America Samoa, Northern Mariana Islands, US Virgin Isles).

An AWS search was conducted, using the following criteria:-

Model – Subject and peer vehicle lines as defined in question 1 response above

Model years – 2010 through 2015

Market – USA (this incorporates federalised territories)

Full Service Part number reported – please see the file [Part Numbers] provided in response to Question 14.

Results were then downloaded to Excel spreadsheets for in-depth analysis, looking for responsive reports.

Results were searched, for key-words listed below, to consider each for the occurrence of any of the alleged defect conditions.

Keyword list:

Smell, Odor/ Odour, Leak, Fumes, Cracked, Fracture, Split, Hole, Leak, Flange.

The final data set was saved for all claims identified from the search and is saved in Appendix Q5, filename: WARRANTY DATA

Appendix Q6 Files includes the problem codes and descriptions associated with the allegations file name: [Problem codes]. Diagnostic trouble codes are manually entered into the warranty system by the retailer warranty claims administrator.

Appendix Q6 Files includes labor operation codes file name: [Jaguar Land Rover Labor Op file].

Appendix Q6 Files includes descriptions of the available new vehicle and extended warranty programs file names: [New and Extended Warranty, Warranty Coverage Terms and Conditions].

The data tabulated below covers Jaguar Land Rover subject vehicles with extended warranty coverage:

Model	Model Year	Number of Vehicles
XF	2010	1024
XF	2011	3319
XF	2012	1870

Question 7

Produce copies of all service, warranty and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that JLR has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that JLR is planning to issue within the next 120 days.

Response 7

For purposes of identifying communications to dealers, zone offices, or field offices pertaining, at least in part, to the alleged defect in the subject vehicles, Jaguar Land Rover has reviewed the Jaguar Land Rover Technical and Owner Publications Information Exchange (TOPIx) website, which is the general repository for all workshop manuals, technical service, and recall communications. In addition, the EPQR database was searched for Special Service Messages. We assume this request does not seek information related to electronic communications to Land Rover dealers regarding the order, delivery, or payment for replacement parts, so we have not included these kinds of information in our answer.

With the exception of the recall bulletins for recalls J027 and J059, there has been no other communication of service, warranty and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that JLR has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities.

Question 8

8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, JLR. For each such action, provide the following information:

- a. Action title or identifier;
 - b. The actual or planned start date;
 - c. The actual or expected end date;
 - d. Brief summary of the subject and objective of the action;
 - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
- and
- f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Response 8

Jaguar Land Rover is submitting a request for confidentiality under separate cover to the agency's Office of the Chief Counsel pursuant to 49 CFR, Part 512 for information, as noted, contained in Appendix Q8 Files.

Jaguar Land Rover is construing this request broadly and is providing not only studies, surveys, and investigations related to the alleged defect, but also notes, correspondence, and other communications that were located pursuant to a diligent search for the requested information.

To the extent that the information requested is available, it is included in the documents provided. If the agency should have questions concerning any of the documents, please advise.

In the interest of ensuring a timely and meaningful submission, Jaguar Land Rover is not producing non-responsive materials or items containing little substantive information. Examples of the types of materials not being produced are meeting notices, raw data lists (such as part numbers or VINs) without any analytical content, duplicate copies, non-responsive elements of responsive materials, and draft electronic files for which later versions of the materials are being submitted. Through this method, Jaguar Land Rover is seeking to provide the agency with substantive responsive materials in our possession in the timing set forth for its response. We believe our response meets this goal. Should the agency request additional materials, Jaguar Land Rover will cooperate with the request.

Appendix Q8 Files [RQ19-004 Appendix Q8 Engineering Evidence] includes a summary all the files submitted in response to this question.

Question 9

9. Describe all modifications or changes made by, or on behalf of, JLR in the design, material composition, manufacture, quality control, supply, installation or software/programming of the subject system and components, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The part number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that JLR is aware of which may be incorporated into vehicle production within the next 120 days.

Response 9

Appendix Q9 Files includes [Q9 Engineering Mods Details] a spreadsheet submitted in response to this request. This is an Excel file detailing for each of the part numbers concerned the engineering release chronology and related information about the reasons for the release. This seeks to cover the content of the request as provided.

In response to section f, g and h, the original part was withdrawn from service supply of these parts to the aftermarket ended October 23, 2012. Production use of the original unmodified part ceased to be used with effect from vehicles built on January 4, 2012. The modified part is fully interchangeable with earlier designs.

Question 10

10. Provide the following information regarding the subject recalls:

- a. Identify all other vehicles, by platform, model and engine that use the same fuel flange as the part originally installed in the subject vehicles and recalled under 12V-521 and 16V-187;
- b. A detailed description of how the recall scopes were determined, including a table summarizing all differences in relevant operating parameters and field experience between the recalled vehicles and all other vehicles equipped with the same subject component;
- c. Copies of all documents related to the development and testing of the remedy fuel flange;
- d. A copy of the 2010 model year vehicle design verification testing results referenced in JLR's chronology for Recall 12V-521;
- e. Copies of all documents specifying fuel system operating pressures for the subject and peer vehicles;
- f. A description of how the alleged defect results in illumination of a malfunction indicator lamp on the instrument cluster (check engine light) as referenced in the subject recalls; and
- g. Copies of all internal documents used in any and all of the technical reviews and briefings related to the investigation and decision making process for the subject recalls.

Response 10

Jaguar Land Rover is submitting a request for confidentiality under separate cover to the agency's Office of the Chief Counsel pursuant to 49 CFR, Part 512 for information contained in Appendix Q10g, as noted.

a. The same exact part as that used on the Jaguar XF (X250) is also used on the Jaguar XJ (X351).

b. The scope of the 16V-187 (J059 recall was to capture the 2010MY XF (X250) 5.0L vehicles built in the pre-job #1 build phased and erroneously omitted from the scope of recall action 12V-521 (J027). The scope of the 12V-521 (J027) recall was defined based on the investigations completed by Jaguar Land Rover Engineering where the evidence of elevated fuel system pressure in 5.0L engine specification vehicles and a concern with the stress levels in the original design of outlet flange. The fuel system pressures are provided in the files provided in response question 10e.

Analysis of warranty data to determine the vehicle line scope of this matter concluded there was a recognised issue with Jaguar XF (X250) extending from the introduction of the 5.0L through to an engineering design of outlet flange change point. The engineering evidence of stress related cracking on the earliest design level part provided compelling argument to consider all XF (X250) vehicles to be exposed to an elevated risk of fuel odor and potential liquid fuel leaks. It was also recognised that parts available in the aftermarket were of the same specification as those fitted at the start of the 2010 Model Year XF (X250) production period. Vehicles where these old level parts were installed were also included in the scope of the recall. The J027 defect notification states "Furthermore a small number of vehicles have had a fuel outlet flange as a service replacement part, supply of these parts to the aftermarket ended October 23, 2012."

Data reviewed for field performance of other vehicles built during the same period did not reveal and trend or pattern for vehicles sold in the USA.

c. The information is provided in the documents submitted under the heading of Question 11 files.

d. These are provided in the response to Question 11 – specifically the files 20080811_DV Test Report_Failure 6.3 bar test.pdf and 20190710_DV Test Report_Passed - X250 6.3 bar retest - 18159-6.pdf refer.

e. These are provided in Appendix Q10 [Files e Fuel System Pressures], documents with the file names:-

TOPlx Range Rover Sport L320 Fuel system pressure 5.0L NA-SC

TOPlx Jaguar XF X250 Fuel system pressure 4.2L NA-SC

TOPlx Jaguar XF X250 Fuel system pressure 5.0L NA-SC

TOPlx Jaguar XJ X351 Fuel system pressure 5.0L NA-SC

TOPlx Range Rover X152 Fuel system pressure 5.0L NA-SC

TOPlx Land Rover LR4 L319 Fuel system pressure 5.0L NA-SC

TOPlx Range Rover L322 Fuel system pressure 5.0L NA-SC

f. The fuel outlet flange is an integral part of the fuel system and in line with environmental legislation, the fuel system is required to prevent the unmetered emissions of hydrocarbons. The evaporative emissions testing system will, through operation of the Diagnostic Module

Tank Leakage (DMTL) pump the fuel lines and system are pressurised. Where pressure decay is then detected, a leak is considered present and a MIL is illuminated. See Appendix Q10f [File DMTL and EVAPS system].

g. Copies are provided in the attached files [g Supporting Documents].

Question 11

11. Provide the following information for each of the subject components used as original equipment, service or recall remedy parts in the subject and peer vehicles including, but not limited to, part numbers 9X23-9A309-AA, 9X23-9A309-AD, 9X23-9A309-AE, DX23-9A309-AA, CPLA-9A309-AA:

- a. High quality top (external view) and bottom (internal view) photographs of the flange;
- b. Engineering drawings of the flange;
- c. Describe, and provide copies of all documents relating to, all testing conducted by, or for, JLR to assess and/or compare the strength or durability of each of the subject components;
- d. Describe, and provide copies of all documents relating to, all finite element analysis (FEA) computer modelling evaluations conducted by, or for, JLR to assess and/or compare the strength or durability of each of the subject components; and
- e. Provide a table summarizing the results of all tests and evaluations identified in 11.c and 11.d for each of the subject components.

Response 11

Jaguar Land Rover is submitting a request for confidentiality under separate cover to the agency's Office of the Chief Counsel pursuant to 49 CFR, Part 512 for information contained in Appendix Q11c-e, as noted.

- a. Attached to responses to questions 8 and 10 are numerous CAD renderings and images which provide detailed imagery of the flanges concerned. Photos of flanges are not held on file and are not presently available.
- b. Engineering drawings are provided in the files for Question 11, the files with the .tif file extension contain copies of the related engineering drawings. The file name providing the specific part number to which the drawing relates.
- c. The testing for the outlet flange was conducted by the component supplier based on the fuel system specifications advised by Jaguar Land Rover. Files named 20080811_DV Test Report_Failure 6.3 bar test.pdf and 20190710_DV Test Report_Passed - X250 6.3 bar retest - 18159-6.pdf refer.
- d. In response to Question 10g, a file named Stress Analysis.pdf is provided. This is the information provided by the supplier showing where stress levels are elevated and comparing the different designs.
- e. Texting for the different designs of the outlet flange are provided in the files 20080811_DV Test Report_Failure 6.3 bar test.pdf and 20190710_DV Test Report_Passed - X250 6.3 bar retest - 18159-6.pdf respectively.

In summary the report 20080811_DV Test Report_Failure 6.3 bar test.pdf concludes that the design of the flange failed to meet the pressure durability tests as provided on the third page of the report. The leakage rate exceeded the limits specified in line item 38.

Test report 20190710_DV Test Report_Passed - X250 6.3 bar retest - 18159-6.pdf concludes that the part in its revised condition meets the required standard for Pressure Cycle / Resistance Test.

The success criteria being that there must be no cracks or damage evident and that a hydraulic leak rate of no more than 1 ml/h is determined.

Question 12

12. Provide engineering drawings of each fuel tank assembly used in the subject and peer vehicles showing the position of the subject components.

Response 12

The drawings are provided for the subject and peer vehicles within the files provided under the heading Question 12 files.

Question 13

Provide a spreadsheet summarizing all subject component returned part analyses from subject or peer vehicles conducted by, or for, JLR, with the following information:

- a. Vehicle identification number (VIN);
- b. Make, model and model year;
- c. The repair date;
- d. The repair mileage;
- e. Component part number ;
- f. All related complaints, field report, or claim identification numbers;
- g. A summary of customer concern;
- h. The returned part analysis report number;
- i. The returned part analysis report date;
- j. Summaries of the results of each inspection/analysis element; and
- k. JLR's assessment of the cause of the failure.

In addition, provide copies of all reports and photographs related to the return part analyses provided in response to this request.

Response 13

There are records showing that six (6) parts were returned from the USA, five from subject the vehicle line and Model Years included in the recall actions and one from a subject vehicle.

The file [RQ19-004 Returned Parts Information a-g] within the Q13 folder provides a listing of the requested information from subparts a through g. Efforts to locate the technical information in relation to these returned parts has been unsuccessful. The required information has not been found. Likely that the information was locally held on computer equipment of a former employee and not filed in line with Jaguar Land Rover's records management policies and procedures. It is therefore not possible to provide any technical information in relation to this question.

Question 14

Separately, by component name and part number (both service and engineering/production), state the number of subject components that JLR sold for use in the subject and peer vehicles by month/year of sale (including the cut-off date for sales, if applicable).

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, all vehicles using the component as an original equipment or service part and state the applicable dates of production or service usage.

In addition, state whether VIN information is collected by JLR for any part sales. If VIN information is collected for any or all part sales, provide a short description of the data collection system and a tabular summary of all such sales by sales date, VIN and all other data collected. Provide this information in Microsoft Access 2010, or a compatible format, entitled "RQ 19-004 PART SALES DATA."

Response 14

The following table summarizes the parts sales by part number (Service and Engineering) of parts sold. There are two tables of data and two attachments which provide the data. The after market parts are divided by brand, the information provided reflects this with two files of data, one called [NHTSA RQ19-004 Part Sales Data Jag] for Jaguar and the other called [NHTSA RQ19-004 Part Sales Data LR] for Land Rover. These attachments provide the sales of parts by month and year.

Supplier name and address Continental Automotive Telford UK Ltd. Unit 4, Hockley Court, 2401 Stratford Rd, Hockley Heath, Solihull, UK, B94 6NW. Contact Mr. Leonard Harmitt – Customer Quality Manager / Warranty Manager, telephone +44 (0) 121 725 1283.

The original design of component was used solely on certain 2010 model year Jaguar XF (X250) vehicles. The modified design (engineering part number 9X23-9A309-AD) was used on Jaguar XJ (X351) from 2010 model year (June 2009 production date) to end 2011 Model Year (May 2011). Part number 9X239A309AE was then introduced for Jaguar XJ (X351) at 2012 model year (May 2011) until part way through 2012 MY where part number DX239A309AA was introduced at 2013 model year (July 2012). No further changes have been made since.

A cross reference table is provided showing the service parts number, the description and then the engineering part number. This file is called [Part Numbers].

For Jaguar, total parts sales are:-

Part Number	Number Sold
C2D25076	6655
C2D28280	540
C2Z10550	324
JDE29874	2

And for Land Rover:-

Part Number	Number Sold
LR013750	128
LR014995	284
LR028456	3343
LR043154	1509
LR043420	8537
LR048891	779
LR124692	2

The Jaguar and Land Rover parts systems do not require a VIN to be entered for parts ordering.

Question 15

15. Provide copies of all communications with suppliers of the subject components regarding the root cause of the alleged defect in the subject, peer and other JLR vehicles equipped with fuel tank fuel outlet flanges that include integrated fuel filters, including the effects of fuel system operating pressures, environmental stress cracking, fuel swell, fuel system temperature, ambient temperature, subject component material composition (including base polymer and enhanced grades), and subject component structural characteristics. Provide this information organized by supplier (i.e., separate attachments for each supplier) and by date of communication.

Response 15

Jaguar Land Rover is submitting a request for confidentiality under separate cover to the agency's Office of the Chief Counsel pursuant to 49 CFR, Part 512 for information contained in Appendix Q15, as noted.

Within the files provided under the heading Question 15 files, to the extent possible, communications shared with the component supplier (Continental) and Jaguar Land Rover are provided.

Question 16

16. Provide JLR's assessment of the alleged defect in the subject and peer vehicles, including;

- a. The causal or contributory factor(s) for the failure, including whether and how JLR considered each of the following: maximum internal pressure, operating pressure range (differences between minimum and maximum operating pressure), environmental stress cracking, stresses produced by fuel swell, and thermal effects;
- b. How the factors in 15a differ among the subject and peer vehicles;
- c. The failure mechanism(s);
- d. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject system was malfunctioning; and
- e. JLR's assessments of the VOQ's referenced in this letter

Response 16

a-b. The issue which caused the safety recalls to be conducted was based on the lack of design robustness which affected the durability of the Jaguar XF (X250) fuel outlet flange, engineering part number . Assessments completed at the time showed the other derivatives of XF and all other peer vehicles were not exposed to the same conditions of a design error that allowed elevated stress as well as ignition off fuel pressures lower than those experienced on the Jaguar XF (X250) 5.0L vehicles.

c. The Jaguar XJ (X351) vehicle which shares the exact same part as the for the XF (X250) 5.0L and 4.2L vehicles started production with the later level design part (engineering part number 9X239A309AD). There is no evidence that this design level is experiencing quality or durability concerns based on the data and technical information provided in this submission.

d. Customers will notice a fuel odor, the amber Malfunction Indicator Lamp on the Instrument Cluster is illuminated, and/or liquid fuel is on the ground.

e. Specifically reflecting on the VOQ's, there is some indication that the XF (X250) 4.2L vehicles are now experiencing an issue similar to that found in the 5.0L products and as such a detailed internal technical review is required to understand this matter. Of the 31 VOQ's eighteen (18) relate to 4.2L specification vehicles which have the same outlet flange design as the 5.0L vehicles.

Seven (7) VOQ's are for vehicles built post the serial production vehicle change point and did not have an old level replacement part installed previously in service.

Three (3) VOQ's relate to vehicles where the recall was previously complete and some time after it is alleged there is a further issue of fuel odour or liquid fuel leaks.

Two (2) VOQ's have VIN's not recognized and therefore comment is not possible.

One (1) VOQ was filed for a vehicle which was eligible for the J027 recall. This recall was subsequently completed in August 2018, the VOQ is dated August 2105.

The following table provides specific feedback for each of the VOQ's provided.

VIN	VOQ Ref	VOQ Date	J027/J059 Included	Field Report/Warranty Claim info - findings and technical assessment
SAJWA0GB873 [REDACTED]	11152571	19/11/2018	N/A	Invalid VIN
SAJWA0GB8BL [REDACTED]	11197034	17/04/2019	N	VIN note part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. No Warranty claim. No field report
SAJWA0GB9AL [REDACTED]	10745695	03/08/2015	Y	VOQ Date August 2015 - recall done post VOQ. Claim [REDACTED] of 24 Aug 18 refers
SAJWA0FA6AH [REDACTED]	10884786	14/07/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report

VIN	VOQ Ref	VOQ Date	J027/J059 Included	Field Report/Warranty Claim info - findings and technical assessment
SAJWA0FA2AH [REDACTED]	10905741	12/09/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA2AH [REDACTED]	11040621	27/10/2017	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA0AH [REDACTED]	10627191	21/08/2014	N	4.2L Recall relates to 5.0L only. Warranty claim dated 20 August 2014 ref. [REDACTED] refers - Fuel Outlet flange reported cracked
SAJWA0FA5AH [REDACTED]	10930054	05/12/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA8AH [REDACTED]	10908138	20/09/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA4AH [REDACTED]	10897059	19/08/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA1AH [REDACTED]	11114463	30/07/2018	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FAXAH [REDACTED]	11149589	06/11/2018	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA6AH [REDACTED]	11118866	09/08/2018	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA6AH [REDACTED]	10920567	01/11/2016	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA2AH [REDACTED]	10661562	02/12/2014	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FAXAH [REDACTED]	10659664	20/11/2014	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA0AH [REDACTED]	10887524	21/07/2016	N	4.2L Recall relates to 5.0L only. Warranty claim dated 4 August 2016 ref. [REDACTED] refers - Fuel Outlet flange reported cracked
SAJWA0FA0AH [REDACTED]	11145319	05/11/2018	N	4.2L Recall relates to 5.0L only. VOQ has wrong VIN O in place of 0 in prefix - corrected to located related information. No

VIN	VOQ Ref	VOQ Date	J027/J059 Included	Field Report/Warranty Claim info - findings and technical assessment
				Warranty claim. No field report
SAJWA0FA0AH [REDACTED]	11142957	26/10/2018	N	4.2L Recall relates to 5.0L only. Repeat/Duplicate VOQ of 11145319
SAJWA0FAXAH [REDACTED]	11006172	18/07/2017	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0FA0AH [REDACTED]	11104523	28/06/2018	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0GB4AL [REDACTED]	11193073	01/04/2019	Y	Recall completed Jan 13. Post recall report. No Warranty claim after the recall remedy completed. No field report
SAJWA0FA3AH [REDACTED]	10789474	10/11/2015	N	VIN note part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. Warranty claim dated 4 November 2015 ref. [REDACTED] refers - Fuel Outlet Fange reported same failure as recall
SAJWA0FA7AH [REDACTED]	11055587	19/12/2017	N	4.2L Recall relates to 5.0L only. No Warranty claim. No field report
SAJWA0HE9AM [REDACTED]	10934750	12/12/2016	Y	VOQ Date Dec 2016No Warranty claim after the recall remedy completed. No field report
SAJWA0GB5AL [REDACTED]	11000867	23/07/2017	Y	VOQ Date June 2017No Warranty claim after the recall remedy completed. No field report
SAJWA0FB3BL [REDACTED]	11133362	04/10/2018	N	VIN not part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. No Warranty claim. No field report

VIN	VOQ Ref	VOQ Date	J027/J059 Included	Field Report/Warranty Claim info - findings and technical assessment
SAJWA0FB2CL [REDACTED]	10995536	16/06/2017	N	VIN not part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. Warranty claim dated 14 June 2017 ref. [REDACTED] refers - Fuel Outlet Flange cracked
SAJWA0FB6CL [REDACTED]	10822314	26/01/2016	N	VIN not part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. No Warranty claim. No field report
SAJWA0FB9CL [REDACTED]	10916210	15/10/2016	N	VIN not part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. No Warranty claim. No field report
SAJWA0FBXC [REDACTED]	11149472	05/11/2018	N	VIN not part of J027/J059 as VIN post production change point and not had aftermarket old level replacement. Warranty claim dated 24 December 2018 ref. [REDACTED] refers - Fuel Outlet Flange cracked

CONCLUSION

There are reports of odors and some of liquid fuel leaks. There is an absence of clear technical explanation for the reports related to the 4.2L vehicles and as such Jaguar Land Rover wish to conduct a structured field study of the 4.2L Jaguar XF (X250) vehicles repaired as part of the J027 and J059 recalls as well as vehicles up to the point where the final iteration of design of the outlet flange was installed in production. Using this information to guide to next steps as a technical understanding of the actual condition of parts is essential in understanding this matter.

For the 5.0L XF (X250) vehicles, the recall remedy is robust and durable with no evidence of any pattern or trend of a concern post recall remedy completion or on vehicles manufactured with the 9X239A309AD part.

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