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

NHTSA

January 25, 2021

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Kobylarz
Safety Compliance Manager, AQ-5501
Product Compliance
Jaguar Land Rover of North America, LLC
100 Jaguar Land Rover Way
Mahwah, NJ 07495

NEF-104
EA20-001

Dear Mr. Kobylarz,

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened an Engineering Analysis (EA20-001) to investigate allegations of brake power assist failure in model year (MY) 2012 through 2013 Range Rover Evoque sport utility vehicles manufactured by Jaguar Land Rover (JLR), and to request certain information.

This office has received a total of seven reports of brake vacuum assist pump failures in Range Rover Evoque sport utility vehicles including three complaints not included in the opening of investigation PE18-014. Drivers allege the brake pedal becomes hard to depress and an increased vehicle stopping occurs with no warning. A copy of each of the reports is enclosed for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2012 through 2013 Range Rover Evoque vehicles manufactured for sale or lease in the United States, including, but not limited to, the District of Columbia, and current U.S. territories and possessions.

- **Peer vehicles:** all JLR vehicles equipped with the subject engines and subject vacuum pumps, including all MY 2014 through 2017 Range Rover Evoque, MY 2013 through 2015 LR2, MY 2015 through 2017 Discovery Sport, MY 2017 Jaguar XE, MY 2013 through 2015 Jaguar XF vehicles manufactured for sale or lease in the United States, including, but not limited to, the District of Columbia, and current U.S. territories and possessions.

- **Subject engines:** all 2.0-liter gasoline turbocharged direct injection (GTDI) engines used in JLR products.

- **Subject vacuum pumps:** all vacuum pumps used as original equipment in the subject vehicles, including pumps supplied by Magna International (Magna) identified by part numbers BB5E2A451-BA, BB5E2A451-BC, and BB5E2A451-BD.

- **Alleged defect:** failure of the subject component resulting in a reduction of power assisted braking.

- **JLR:** Jaguar Land Rover of North America LLC, including its parent company Tata Motors, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of JLR (including all business units and persons previously referred to), who are or, in or after January 1, 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

  a. Design, engineering, analysis, modification or production (e.g. quality control);
  b. Testing, assessment or evaluation;
  c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.

- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts,

administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by JLR, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by JLR or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as JLR has previously provided a document to ODI, JLR may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After JLR's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject and peer vehicles JLR has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by JLR, state the following:
   a. Vehicle identification number (VIN);
   b. Make;
   c. Model;
   d. Model Year;

e. Subject component part number and design version installed as original equipment;
f. Date of manufacture;
g. Date warranty coverage commenced; and
h. 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 2010, or a compatible format, entitled "PRODUCTION DATA."

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; and
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 "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 "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 "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.

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'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 the vehicle was towed;
j. Whether a crash is alleged;
k. Whether a fire 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 "REQUEST NUMBER TWO DATA."

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 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.

5. State, by model and model year, a total count 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 claim for towing was received that may have been related to the vacuum pump repair claim;
   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 in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

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, diagnostic trouble codes, part numbers and any other pertinent parameters used.

Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject 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 vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

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.

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 and peer 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.

9. State the number of brake vacuum pumps JLR has sold that may be used in the subject and peer vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and 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, any other vehicles of which JLR is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

10. During PE18-014, JLR provided warranty claim data related to vacuum pump failures resulting in loss of brake power assist in the subject vehicles and peer vehicles using vacuum pumps as the primary method for furnishing brake booster vacuum. ODI's analysis of the data provided showed the overall claim rate for vehicles equipped with vacuum pumps supplied by Magna was approximately 30 times greater than the overall rate for vehicles equipped with vacuum pumps supplied by Pierburg. Provide the following information regarding JLR's assessment of loss of brake vacuum assist field experience in MY 2012 through 2017 vehicles using vacuum pumps as the primary source of brake booster vacuum by vacuum pump supplier:
    a. JLR's assessment of the claim rates; and
    b. JLR's assessment of all factors contributing to the differences.

11. Further analysis of vacuum pump claim data in PE18-014 noted differences in claim rates for products equipped with the subject engines and subject vacuum pumps. Provide the following information regarding JLR's assessment of factors affecting failure of the subject vacuum pumps in JLR products:
    a. JLR's assessment of the claim rates by engine, model and model year for all products equipped with the subject vacuum pumps; and
    b. JLR's assessment of all factors contributing to differences in the rates of vacuum pump failure.

12. Provide JLR's assessment of the trend of vacuum pump failures in the subject vehicles, including:
    a. Weibull model of the warranty data;
    b. Comparison with peer vehicles; and
    c. Raw data used to create Weibull analysis

13. Provide the following information about the MY 2014 and later Range Rover Evoque vehicles that use intake manifold vacuum as a secondary source of vacuum for the brake booster:
    a. Provide a CAD view of the layout of the brake booster vacuum supply system, including the booster, the vacuum pump, the intake manifold, and the vacuum tube assembly;
    b. Provide a CAD view of the intake manifold vacuum supply fitting;
    c. Provide a CAD view of the intake manifold of the subject vehicles, state whether the fitting shown in 13.b is available, and, if so, describe how it is covered in the subject vehicles;
    d. Describe all differences in the vacuum produced in the intake manifold in the subject vehicles and in the MY 2014 and later Range Rover Evoque vehicles; and
    e. State whether the vacuum tube assembly used in the 2014 Range Rover Evoque vehicles could be installed as a field modification on the subject vehicles and, if not, provide an explanation.

14. Provide the following information regarding the brake performance of the subject and peer vehicles:
    a. Brake deceleration vs pedal force curves for 2012-2013 RRE vs 2014-2017 RRE, baseline; and
    b. Brake deceleration vs pedal force curves for 2012-2013 RRE vs 2014-2017 RRE, failed vacuum pump and depleted booster vacuum.

15. Provide a list of design specifications for the subject vacuum pumps for both subject and peer vehicles, including:
    a. Maximum vacuum pressure;
    b. Minimum vacuum pressure;
    c. Maximum time allowable to reach pressures of 15a and 15b;
    d. Test conditions used to measure pump performance, including engine temperature, accessory load, elevation, and any adjustments used to compensate for elevation;
    e. Test procedure used to measure pump performance;
    f. Durability requirements.

16. Furnish JLR's assessment of the alleged defect in the subject and peer vehicles, including:
    a. The causal or contributory factor(s);
    b. The failure mechanism(s);
    c. The failure mode(s);
    d. The risk to motor vehicle safety that it poses; and
    e. 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 component was malfunctioning; and
    f. The reports included with this inquiry.

Legal Authority for This Request

This letter is being sent to JLR pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

Civil Penalties

JLR's failure to respond promptly and fully to this letter could subject JLR to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) The Vehicle Safety Act, as amended, 49 U.S.C. § 30165(a)(3), provides for civil penalties of up to $21,780 per violation per day, with a maximum of $108,895,910 for a related series of daily violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by Fixing America's Surface Transportation Act (the "FAST Act"), Pub. L. 114-94, § 24110(a)(2), 129 Stat. 1312 (Dec. 4, 2015)). This includes failing to respond completely, accurately, and in a timely manner to ODI information requests.

If JLR cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, JLR does not submit one or more requested documents or items of information in response to this information request, JLR must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

Confidential Business Information

All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office. In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to EA20-001 in JLR's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If JLR claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, JLR must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512. Additional information can be found here: https://www.nhtsa.gov/coronavirus/submission-confidential-business-information.
If you have any questions regarding submission of a request for confidential treatment, contact Daniel Rabinovitz, Trial Attorney, Office of Chief Counsel at daniel.rabinovitz@dot.gov or (202) 366-8534.

Due Date

JLR's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by March 19, 2021. JLR's response must include all non-confidential attachments and a redacted version of all documents that contain confidential information. If JLR finds that it is unable to provide all of the information requested within the time allotted, JLR must request an extension from Gregory Magno at (202) 366-5226 no later than five business days before the response due date. If JLR is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information JLR then has available, even if an extension has been granted.

Please send email notification to Gregory Magno at Gregory.Magno@dot.gov and to ODI_IRresponse@dot.gov when JLR sends its response to this office and indicate whether there is confidential information as part of JLR's response.

If you have any technical questions concerning this matter, please call Chris LaMance of my staff at (202) 366-9525.

Sincerely,

[redacted]

Jeffrey Quandt, Chief
Vehicle Defects Division D
Office of Defects Investigation

Enclosure 1, Copies of the subject reports referenced in the introduction of this letter identified by the following ODI reference numbers: 10986358, 11025409, 11083348, 11131896, 11149724, 11231234, 11343256.