



**VIA ELECTRONIC SUBMISSION
INCLUDING REQUEST FOR CONFIDENTIAL TREATMENT**

October 19, 2020

Mr. Bruce York, Chief
Medium/Heavy Duty Vehicle Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

**RE: Preliminary Evaluation PE20-006 to Investigate Allegations of Loss of Power
Steering Assist in Vehicles Equipped With a ZF/TRW THP60 Steering Gear;
Response to Information Request**

Dear Mr. York:

ZF Group/TRW (“ZF”) is submitting its response to the National Highway Traffic Safety Administration (“NHTSA” or “Agency”) in response to the Office of Defects Investigation’s July 29, 2020 request for information relating to the Agency’s investigation of allegations of loss of power steering assist in vehicles equipped with a ZF/TRW THP60 steering gear in certain model year (“MY”) Freightliner Cascadia, Volvo VN, and Paccar 337, 365, 389, 567, and 579 vehicles, as well as allegations regarding communication submissions under 49 C.F.R. § 579.5. Pursuant to consultations with NHTSA, the subject vehicle population for this information request response was limited to MY 2012-2020 Freightliner Cascadia vehicles, and the due date for this information request response was extended to October 19, 2020.

ZF makes this submission along with a corresponding request for confidential treatment for portions of this submission, as well as ZF’s accompanying document production. Accordingly, pursuant to 49 C.F.R. §512.6(b)(2) confidential pages of this response letter are so labeled and the portions of text containing confidential information have been marked with brackets ‘[]’ at the beginning and end of the confidential text (and changed to blue font for ease of identification as some text spans multiple pages).

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Request Nos. 1-17 from your July 29, 2020 letter are repeated below, followed by the corresponding response.

Request No 1:

1. State, by model and production year, the number of subject components ZF Group/TRW has manufactured for OEM use and aftermarket sales in the United States. Separately, for each subject component manufactured to date by ZF Group/TRW, state the following:
 - a. Serial number;
 - b. Make;
 - c. Model;
 - d. Facility steering gear was manufactured
 - e. Subject component part number and design version;
 - f. Final stage manufacturer the component was sold to;
 - g. Date of subject component manufacture; and
 - h. Date warranty coverage commenced.

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request No. 1

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Request No. 2:

2. State the number of each of the following, received by ZF Group/TRW, or of which ZF Group/TRW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject component:
- 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 ZF Group/TRW is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which ZF Group/TRW 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 ZF Group/TRW'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 to Request No. 2

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[REDACTED]

Request No. 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. ZF Group/TRW'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. OEM or aftermarket sales location which initially received the steering gear from ZF Group/TRW;
 - e. Subject component's serial number;
 - f. Subject component's make, model and production date;

- g. Subject component's mileage at time of incident if known;
- h. Subject component's time in service at time of incident;
- i. Incident date;
- j. Report or claim date;
- k. Whether a crash is alleged;
- l. Whether a fire is alleged;
- m. Whether property damage is alleged;
- n. Number of alleged injuries, if any; and
- o. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request No. 3

ZF refers to its response to Request No. 2 above.

Request No. 4:

- 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 ZF Group/TRW used for organizing the documents. Describe in detail the search methods and search criteria used by ZF Group/TRW to identify the items in response to Request No. 2.

Response to Request No. 4

ZF refers to its response to Request No. 2 above.

Request No. 5:

- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by ZF Group/TRW to date that relate to, or may relate to, the alleged defect in the subject components: 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. ZF Group/TRW's claim number;

- b. Vehicle owner or fleet name (and fleet contact person), street address, email address and telephone number;
- c. Serial number;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Vehicle's Time in Service at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h. Labor operation number(s);
- i. Problem code(s);
- j. Diagnostic Trouble Code(s);
- k. Replacement part number(s) and description(s);
- 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." A pre-formatted data collection file, which provides further details regarding this submission, will be provided to you.

Response to Request No. 5

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

Request No. 6:

6. Describe in detail the search methods and search criteria used by ZF Group/TRW 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, model, and production year, the terms of the new vehicle warranty coverage offered by ZF Group/TRW on the subject components (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 ZF Group/TRW offered for the subject components and state by option, make, model, and production year, the number of subject components that are covered under each such extended warranty.

Response to Request No. 6

ZF refers to its response to Request No. 5, above.

Request No. 7:

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject components, that ZF Group/TRW 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 ZF Group/TRW is planning to issue within the next 120 days.

Response to Request No. 7

[REDACTED]

Request No. 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 component that have been conducted, are being conducted, are planned, or are being planned by, or for, ZF Group/TRW. 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 to Request No. 8

[REDACTED]

[REDACTED]

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Request No. 9:

9. Describe all modifications or changes made by, or on behalf of, ZF Group/TRW in the design, material composition, manufacture, quality control, supply, or installation of the subject component, 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:
- The date or approximate date on which the modification or change was incorporated into the subject component production;
 - A detailed description of the modification or change;
 - The reason(s) for the modification or change;
 - The part number(s) (service and engineering) of the original component;
 - The part number(s) (service and engineering) of the modified component;
 - Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
 - When the modified component was made available as a service component; and
 - Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that ZF Group/TRW is aware of which may be incorporated into subject component production within the next 120 days.

Response to Request No. 9

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Request No. 10:

10. Produce one/two of each of the following:

- a. Exemplar sample of each design version of the subject component;

- b. Field return sample of the subject component exhibiting the subject failure mode; and
- c. Any kits that have been released, or developed, by ZF Group/TRW for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

Response to Request No. 10

[REDACTED]

Request No. 11:

11. State the number of each of the following that ZF Group/TRW has sold that may be used in the subject 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*):
- a. Subject component; and
 - b. Any kits that have been released, or developed, by ZF Group/TRW for use in service repairs to the subject component/assembly.

Response to Request No. 11

ZF refers to its response to Request No. 1 above.

Request No. 12:

12. 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 ZF Group/TRW is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage. Furnish ZF Group/TRW's assessment of the alleged defect in the subject component, 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

Response to Request No. 12

[REDACTED]

[REDACTED]

Request No. 13:

13. It appears that ZF Group/TRW has not reported all communications required under 49 C.F.R. 579.5 to NHTSA. Provide a chart containing the following information for a period of five years prior to the date of this Information Request for each communication that was not provided to NHTSA in the time frame required:

- a. The name of the communication;
- b. The date of the communication;
- c. The date the communication was reportable; and

Response to Request No. 13

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Request No. 14:

14. For a period of five years prior to the date of this Information Request, provide a copy of all notices, bulletins, and other communications as specified by 49 C.F.R. 579.5 that ZF Group/TRW has not previously provided to NHTSA regardless of whether ZF Group/TRW considered the communication to be related to a defect or not. To the extent not indicated on each document, provide the date that each notice, bulletin, or other communication responsive to this request was issued.

Response to Request No. 14

ZF refers to its response to Request No. 13 above.

Request No. 15:

15. To the extent you provided communications in response to the request immediately above, explain why those communications had not previously been submitted to NHTSA.

Response to Request No. 15

ZF refers to its response to Request No. 13 above.

Request No. 16:

16. Describe in detail the ZF Group/TRW process for submitting communications required under 49 C.F.R. 579.5 to NHTSA. State whether ZF Group/TRW has made any changes to that process during the prior five years and, if yes, describe the changes.

Response to Request No. 16

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Request No. 17:

17. Describe in detail any changes ZF Group/TRW anticipates making to its processes for providing communications required under 49 C.F.R. 579.5 to NHTSA. Your response must include an anticipated timeline for implementing any such changes.

Response to Request No. 17

[REDACTED]

* * * *

Please do not hesitate to contact us should you have any questions regarding this response.

Sincerely,

[REDACTED]

Janet L. Conigliaro
ZF Group
Regulatory Legal Counsel
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