



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

FEB 20 2007

400 Seventh Street, S.W.
Washington, D.C. 20590

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Rolf Scherer
Mercedes-Benz USA, LLC.
One Mercedes Drive
Box 350
Montvale, NJ 07645-0350

NVS-213swmc
PE07-007

Dear Mr. Scherer:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE07-007) to investigate allegations of inappropriate brake application to one or more wheels which may occur suddenly and unexpectedly due an Electronic Stability Program (ESP) malfunction in model year (MY) 2000 through 2001 Mercedes M Class vehicles manufactured by Mercedes-Benz, and to request certain information.

This office has received five Vehicle Owner Questionnaires (VOQs) alleging incidents of inappropriate brake application to one or more wheels in MY 2000 through 2001 Mercedes M Class vehicles. Three of the reports identify the ESP yaw rate sensor as the faulty component. Another report alleges multiple incidents of inappropriate brake application "at speeds 60 mph and higher" accompanied by ESP lamp illumination. The other report alleges a loss of control incident due to lock-up of the right rear wheel with no application of the service brake pedal. A list of the VOQ reference numbers is provided at the end of this letter.

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

- **Subject vehicles:** all MY 2000 to 2001 Mercedes M Class vehicles manufactured for sale or lease in the United States.
- **Subject system:** the Electronic Stability Program system used in the subject vehicles and all associated hardware and software.
- **Subject component:** the ESP yaw rate sensor.



NHTSA
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DOT AUTO SAFETY HOTLINE
888-DASH-2-DOT
888-327-4236

- **Mercedes-Benz:** Mercedes-Benz USA, LLC, DaimlerChrysler AG, Mercedes-Benz International, all of their past and present officers and employees, whether assigned to their principal offices or any of their field or other locations, including all of their 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 Mercedes-Benz (including all business units and persons previously referred to), who are or, in or after January 1, 1998, 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.

- **Alleged defect:** any failure or malfunction of the subject system that results in inappropriate brake application to one or more wheels when the driver has not applied the service brakes and the vehicle is not in a dynamic state that should activate the subject system.

- **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 Mercedes-Benz, 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 Mercedes-Benz 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 Mercedes-Benz has previously provided a document to ODI, Mercedes-Benz 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 Mercedes-Benz' response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model, model year and brake system, the number of subject vehicles Mercedes-Benz has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Mercedes-Benz, state the following:
 - a. Vehicle identification number (VIN);
 - b. Model;
 - c. Model Year;
 - d. Date of manufacture;
 - e. Date warranty coverage commenced;
 - f. Type of brake system; 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 Disc, for a pre-formatted table which provides further details regarding this submission.

2. State the number of each of the following, received by Mercedes-Benz, or of which Mercedes-Benz is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field reports, including dealer field reports and reports made to Delfi or similar entities;
 - 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. Reports involving a fire, 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;
 - e. Property damage claims;
 - f. Third-party arbitration proceedings where Mercedes-Benz is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which Mercedes-Benz is or was a defendant or codefendant.

For subparts "a" through "e" 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 Mercedes-Benz' 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. The Mercedes-Benz 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 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 a fire is alleged;
- k. Whether property damage is alleged;
- l. Number of alleged injuries, if any; and
- m. 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.

- 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 Mercedes-Benz used for organizing the documents.
- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Mercedes-Benz to date that relate to, or may relate to, the subject system in the subject vehicles: warranty claims; extended warranty claims; claims for goodwill 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. The Mercedes-Benz claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. Vehicle owner's address;
- d. VIN;
- e. Repair date;
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h. Labor operation number;
- i. Problem code;
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer;
- l. The cause and correction of the concern; and
- m. Additional 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.

- 6. Describe in detail the search criteria used by Mercedes-Benz to identify the claims identified 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, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Mercedes-Benz 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 Mercedes-Benz 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 Mercedes-Benz 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 Mercedes-Benz 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 vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Mercedes-Benz. 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. Include in the response to this question detailed descriptions of all analyses of subject system components, including but not limited to the subject components, returned from the field.

9. Describe all modifications or changes made by, or on behalf of, Mercedes-Benz in the design, material composition, manufacture, quality control, supply, or installation of the subject system and 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:
 - 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 numbers (service and engineering) of the original component;
 - e. The part number (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 Mercedes-Benz is aware of which may be incorporated into vehicle production within the next 120 days.

10. State the number of subject components that Mercedes-Benz 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*).

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 Mercedes-Benz is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

11. Provide a detailed description of the design and operation of the subject system in all driving modes and speeds, including all related failure mode and effect analyses. Include a detailed description of system diagnostics and a list of all related fault codes.
12. Provide the following information regarding the subject components:
 - a. Detailed descriptions of the sensor design and operation;
 - b. Descriptions and copies of all documents relating to, all durability and environmental testing; and
 - c. A cutaway sample of a yaw rate sensor encased in clear plastic, if necessary, and a magnified view diagram identifying internal parts by name and function.
13. Describe and provide copies of all documents relating to all studies or assessments conducted by or for Mercedes Benz regarding the effects on vehicle operation/control of an inappropriate activation of the subject system.
14. Provide the following information regarding the subject component, which is identified as the causal component in VOQ's 10176935, 10175190 & 10174434:
 - a. Describe how a dealer technician determines that a yaw rate sensor has failed or malfunctioned (provide this answer both by procedure and for the specific repairs performed for the vehicles in referenced VOQ's);
 - b. Identify all failure modes that will produce a fault code that can be retrieved by a repair technician;
 - c. Identify all failure modes that would not produce a fault code, with an explanation of how such conditions develop and how they can be detected and repaired;
 - d. Identify all intermittent failure modes that Mercedes-Benz has confirmed or theorized for the subject component;
 - e. Describe how the subject system can recognize that a signal from the subject component is inaccurate (for example, identify all other data available to the ESP processor that can be used to verify that the subject component signal is correct/plausible);

- f. Describe the braking authority of the subject system during an ESP event, including a description of all conditions that would trigger system activation; all signals (visible, audible or other) to the driver that an ESP event is occurring; a description of how the system applies the brakes – i.e., the braking strategy for each type of event; and the duration of system activation and braking authority; and
 - g. State the location of the subject component in the subject vehicles (e.g., beneath the center console unshielded; beneath the driver's seat covered by carpeting, etc.).
15. Provide the following information regarding the vehicles in the referenced VOQ's:
- a. Copies of the repair orders for the two repair attempts made on VOQ 10176935 to correct inappropriate ESP selective brake application (allegedly one repair to the brake switch and one repair to the yaw rate sensor, both on the same or consecutive days, as indicated by interview with the complainant). Include all notes, procedures and diagnostic read-outs that are included on, or associated with, the repair order, from the technician, service advisor, customer or from any other source;
 - b. Warranty histories for VIN 4JGAB54E9YA173907 (VOQ 10155050) and VIN serial number ending -1A265540 (Delfi-case no. 0240050458); and
 - c. Provide Mercedes-Benz's assessment of any and all faults of the following subject vehicle systems/components that can cause a single rear-wheel to lock-up without application of the service brakes by the driver: (a) the ABS control unit; and (b) the subject system.
16. Furnish Mercedes-Benz's assessment of the alleged defect in the subject 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. The reports included with this inquiry.

This letter is being sent to Mercedes-Benz 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. Mercedes-Benz's failure to respond promptly and fully to this letter could subject Mercedes-Benz 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.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$6,000 per day, with a maximum of \$16,375,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

If Mercedes-Benz 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, Mercedes-Benz does not submit one or more requested documents or items of

information in response to this information request, Mercedes-Benz 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.

Mercedes-Benz's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by April 13, 2007. Please refer to PE07-007 in Mercedes-Benz's response to this letter. If Mercedes-Benz finds that it is unable to provide all of the information requested within the time allotted, Mercedes-Benz must request an extension from me at (202) 366-5207 no later than five business days before the response due date. If Mercedes-Benz 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 Mercedes-Benz then has available, even if an extension has been granted.

If Mercedes-Benz 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, Mercedes-Benz must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (69 Fed. Reg. 21409 et seq; April 21, 2004), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Mercedes-Benz is required to submit two copies of the documents containing allegedly confidential information (except for only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Stephen McHenry of my staff at (202) 366-4883.

Sincerely,



Jeffrey L. Quandt, Chief
Vehicle Control Division
Office of Defects Investigation

VOQ reference numbers: 10155050, 10174434, 10175190, 10176935, 1017775

Enclosure 1, One CD ROM titled Data Collection Disc containing three files