



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

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

APR 14 2003

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jeff Christner
Code and Compliance Engineer
Newmar Corporation
355 N. Delaware Street
P.O. Box 30
Nappanee, In 46559-0030

NVS-214sjm
EA03-003

Dear Mr. Christner:

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 (EA03-003) to investigate allegations of overheated Bosch brake components in certain motor homes manufactured by Newmar.

As you are aware, this office is investigating the Zero Offset Pin Slide (ZOPS) disc brake system manufactured by the Robert Bosch Corporation and installed on certain motor homes produced by Newmar. To date, three different manufacturers have submitted safety recall reports pertaining to the ZOPS brake system. After reviewing information Newmar provided in response to PE02-046c, an investigation into brake systems designed by Robert Bosch Corporation, NHTSA is opening an Engineering Analysis on Newmar vehicles equipped with ZOPS disc brake system. This investigation is being opened to allow additional, comprehensive data review, to conduct testing, perform a full evaluation of failure allegations from the field and to determine whether field action in the form of a safety recall is indicated for Newmar vehicles utilizing the ZOPS assembly.

NHTSA requests that a copy of the IR response, in its entirety, be submitted on CD ROM or 3-1/2 diskette(s).

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

- **Subject vehicles:** all 1998 through 2003 Newmar vehicles produced and equipped with the Bosch ZOPS brake system.



DOT AUTO SAFETY HOTLINE
888-DASH-2-DOT
888-327-4298

- **Newmar**: Newmar Corporation, 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 Newmar (including all business units and persons previously referred to), who are or 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, malfunction, or otherwise unsatisfactory performance of a subject brake system that causes or contributes to excessive or abnormal heat generation, smoking, burning, thermal events, and/or any failure, malfunction, or otherwise unsatisfactory performance of a subject brake system manifested by one or more of the following: brake fade, caliper failure, premature disc brake pad wear, ABS sensor failure, and/or an increase in vehicle stopping distance or disablement of the ABS sensor.

- **Bosch**: Robert Bosch Corporation

- **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 Newmar, 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 the manufacturer 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 Newmar has previously provided a document to ODI, Newmar 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 Newmar'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 vehicles Newmar has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Newmar, state the following:
 - a. Vehicle identification number (VIN);
 - b. Make;
 - c. Model;

- d. Model Year;
- e. Chassis builder and VIN;
- f. **Current** Owners name, address and telephone number;
- g. Gross Vehicle Weight Rating (GVWR) and Combine Vehicle Weight Rating (CVWR);
- h. Identify which caliper design was installed on the front and rear axles, i.e., 66MM/73MM, if tag axle was installed, identify the manufacturer and the caliper design;
- i. Date of manufacture;
- j. Date warranty coverage commenced; and
- k. The state in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Excel, or a compatible format, entitled "Response No. 1, PRODUCTION DATA."

2. Provide the identical information requested in question No.1 for all Newmar vehicles equipped with the Bosch ZOH-T disc brake caliper system. Provide the table in Excel, or a compatible format, entitled "Response No. 2, ZOH-T PRODUCTION DATA."
3. For each vehicle identified in question No. 1 and No. 2, state whether each vehicle was equipped with an anti-locking brake system (ABS); If so, identify the manufacturer of the ABS system.
4. For each vehicle identified in question No. 1 and No. 2, state whether the vehicle was equipped with any type of engine or transmission braking system. If so, identify the manufacturer of the system.
5. State the number of each, and provide copies of the following, received by Newmar, or of which Newmar 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. Claims that were made to the chassis supplier;
 - c. Field reports, including dealer field reports;
 - d. Reports involving a crash, injury, or fatality;
 - e. Reports involving a fire;
 - f. Property damage claims;
 - g. Third-party arbitration proceedings where Newmar is or was a party to the arbitration; and,
 - h. Lawsuits, both pending and closed, in which manufacturer is or was a defendant or codefendant.

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 "g" and "h", provide a summary description of the alleged problem and causal and contributing factors and Newmar's assessment of the problem, with a summary of the significant underlying facts and evidence. Also for items "g" and "h", 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.

Provide the table in Excel, or a compatible format, entitled "Response No. 5, CLAIM DATA."

6. Provide the identical information requested in question No. 5 for all Newmar vehicles equipped with the Bosch ZOH-T disc brake caliper system. Provide the table in Excel, or a compatible format, entitled "Response No. 6, ZOH-T CLAIM DATA."
7. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 5, state the following information:
 - a. Newmar's file number or other identifier used;
 - b. The category of the item, as identified in Request No. 5 (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 and body or serial number;
 - e. Vehicle's make, model and model year;
 - f. Vehicle's mileage at time of incident;
 - g. Incident date;
 - h. Report or claim date;
 - i. Whether a crash is alleged;
 - j. Whether a fire is alleged;
 - k. Whether property damage is alleged;
 - l. Number of alleged injuries, if any;
 - m. Number of alleged fatalities, if any.
 - n. Concern stated by customer;
 - o. What parts were repaired, changed or replaced;
 - p. Comment, if any, by dealer/technician relating to claim and/or repair; and
 - q. Newmar's assessment of the claim.

Provide this information in Excel, or a compatible format, entitled "Response to No. 7 CLAIM DATA."

Produce copies of all documents related to each item within the scope of Request No. 5. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Newmar used for organizing the documents.

8. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Newmar to date that relate to, or may relate to, the alleged defect in the subject 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, provide a copy of each claim.

Also, separately, for each such claim, state the following information:

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

Also, Provide this information in Excel, or a compatible format, entitled "Response to No.8 CLAIM PAID DATA."

9. For each claim denied in question numbers 5 and 8, provide the following information:
 - a. Newmar's claim number and reason for the claim being denied;
 - b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
 - c. VIN, body or serial number;
 - d. Concern stated by customer;
 - e. How was the vehicle repaired and date of repair;
 - 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); and
 - k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Excel, or a compatible format, entitled "Response to No.9 CLAIM DENIED DATA."

10. Describe in detail the search criteria used by Newmar to identify the claims identified in response to Request No.5 and 8, 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.
11. State, by make and model year, the terms of the new vehicle warranty coverage offered by Newmar 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) related to the alleged defect that Newmar 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.

12. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Newmar 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 Newmar is planning to issue.
13. 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, Newmar. 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.

14. Describe all modifications or changes made by, or on behalf of, Newmar in the design, material composition, manufacture, quality control, supply, or installation of the subject brake system, 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 Newmar is aware of which may be incorporated into vehicle production within the next 120 days.

15. State the number of each of the following that Newmar 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. Front brake caliper assembly;
 - b. Rear brake caliper;
 - c. Tag axle brake caliper; and
 - d. Any kits that have been released, or developed, by Newmar or Bosch for use in service repairs to the subject component/assembly.

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

16. Furnish Newmar's assessment of the alleged defect in the subject vehicle, 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.
17. Separately for each VIN listed below, provide copies of all or any documents, including but not limited to, a maintenance history file printout, any service documents, complaints, reports, warranty claims, field reports, dealer invoices, and copies of any documents of trip reports/field inspections, notes taken during the inspection, or documents received or generated by Newmar. Also, if representatives from Bosch or Workhorse Chassis were present during vehicle inspections, identify the representative(s) for each company. For each VIN listed, separately, identify the reason for the claim, date of claim, mileage, model, series, model year, vehicle vocation, GVWR, CGVW, body or serial number, chassis manufacturer, and Newmar's assessment of the complaint and the resolution of each claim. If Newmar had replaced any vehicle as "good will," state so. Also, provide the current owners name, address, and current telephone numbers.
- a. 5B4MP67G513331374
 - b. 5B4PM67G813327982
 - c. 5NCAA02AX2N000037
 - d. 5NCAA01A61N000004
 - e. 5NCAA02A12N000041

- c. 5NCAA02AX2N000037
- d. 5NCAA01A61N000004
- e. 5NCAA02A12N000041
- f. 5B4MP67G813328856
- g. 5B4MP67G723338540
- h. 5B4MP67G213328853
- i. 5NCAA02A92N000031
- j. 5NCAA01AX1N000006

Also provide a copy of this information in Excel, or a compatible format, entitled "Response to No.17 VIN SEARCH DATA."

18. State whether Newmar has engaged in any communications or discussions with, received or sent any correspondence to, or met with (which actions are collectively referred to herein as "communications") any vehicle manufacturers who have purchased the vehicles equipped with the subject brake system(s) or parts thereof, or with any other vehicle manufacturers, suppliers (including Bosch), representatives, consultants, investigators, or other persons, that pertain in any way to the alleged defect, or to the design, manufacture, performance, durability, quality, testing, or modification of the subject brake systems. If so, provide a chronological summary listing such activity. For each communication, provide all documents relating to any such communications. For each meeting, provide a detailed description of all matters discussed, and furnish all relevant documents, including agendas, reports, minutes, and notes compiled by each participant. Also, describe all recommendations and decisions resulting from each meeting. For any such communication that was not documented, state the date or approximate date on which it was held, identify, by name, position, and employer, all participants in the communication, and summarize the substance of the communication.
19. Provide a complete, detailed description of the subject brake system and all available repair kits being offered by Newmar or Bosch. Also, provide Newmar's engineering specification drawing(s) of each of the subject brake system. Furnish the material specifications for the components if not included on the drawings. Identify and describe all markings Newmar and Bosch inscribe on the subject components.
20. Documents received during the course of this investigation suggest that "response teams" were formed that would visit fleets that were reporting thermal/fire events occurring on their vehicles. Describe what role Newmar played as a member of these teams. Identify the date on which Newmar and Bosch began conducting joint warranty return inspections. Provide copies of all documents produced as the result of these inspections, either joint or separate inspections. Identify the individual dates that these inspections occurred and the location of each inspection. Provide a complete chronology, listing all activities or events, on-site visits or filed trips, including, but not limited to, incidents involving the subject brake systems for each vehicle inspected. List the model, model year, VIN, description of the problem, disposition of each inspection, and the repairing dealer (and include the dealer's name, address, and telephone number). Provide a copy of all relevant information/documents from each listed visit. State the number of repairs and/or

replacement parts paid for by Newmar, or on Newmar's behalf, that resulted from these activities identified. If Newmar was not involved in these "teams," then state so.

21. Describe how Newmar first became aware of the alleged defect and state the date on which Newmar first became aware of the possibility of the alleged defect.
22. This refers to Newmar's response dated August 19, 2002 to the PE02-046c IR, Warranty Claim #1 (VIN # 5NCAA02AX2N000037). Item 8 of Newmar's response states: "the driver was not aware of the exhaust or engine assist brake and did not downshift, therefore using braking for the entire trip down the mountain. This in turn heated the brakes causing the brakes to be less responsive. Inspection showed one brake had excessive heating."
 - a. Assuming that the entire vehicle brake system was being overstressed during the mountain descent, provide Newmar's assessment as to why only one brake caliper exhibited symptoms of excessive heating.
 - b. Indicate whether the engine brake was required for this vehicle to meet the brake certification, and provide a copy of all applicable FMVSS No. 105 and No. 135 certification testing.
 - c. For the subject vehicles and Newmar vehicles produced with the Bosch ZOH-T brake system, provide a list by model year, make, model of vehicles equipped with the "exhaust or engine brake" option.
 - d. Provide a detailed description of the "exhaust or engine assist brake" used on the subject vehicles and provide a copy of all data, instructions, and operating instructions given to the owner of a vehicle equipped with such system.
 - e. State whether the engine assist brake is a standard or an optional item.
23. Newmar's follow-up letter of October 7, 2002, stated, "Newmar sent a representative to inspect the motor home and to evaluate the brakes. It was determined that the brakes were in proper working order and no signs of failure existed with any of the components." Provide the title and name of the person performing the inspection. Also, provide a list identifying all parties present during the inspection and who repaired and assisted in the repair of the subject vehicle. Provide any notes or related documents germane to this inspection and repair.
24. Provide an explanation as to why in the August 19, 2002, response to NHTSA, Newmar stated, "the inspection showed that one brake had excessive heating" and subsequently all the calipers were replaced "as a goodwill decision," yet, in the October 7 letter to NHTSA, Newmar states, that it was determined that the brakes were in proper working order and no signs of failure existed with any of the components. Provide the name and title of the person making this determination and provide all documentation relating to this decision.
25. Furnish a copy of all documents not specifically requested herein that Newmar believes are relevant to, or which were used in formulating its assessment of, the alleged defect.

26. Identify what action Newmar intends to take on this issue.

This letter is being sent to Newmar 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. Newmar's failure to respond promptly and fully to this letter could subject Newmar 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 \$5,000 per day, with a maximum of \$15 million for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond to ODI information requests.

If Newmar 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, Newmar does not submit one or more requested documents or items of information in response to this information request, Newmar 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.

Newmar's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by **June 6, 2003**. Please refer to EA03-003 in Newmar's response to this letter. If Newmar finds that it is unable to provide all of the information requested within the time allotted, Newmar must request an extension from me at (202) 366-4933 no later than five business days before the response due date. If Newmar 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 Newmar then has available, even if an extension has been granted.

If Newmar 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, Newmar must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Newmar is required to submit two copies of the documents containing allegedly confidential information (except 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 Mr. Sonny Murianka of my staff at (202) 366-5196.

Sincerely,

Original Signed By

Kathleen DeMeter, Director
Office of Defects Investigation
Enforcement

