



MAR 23 2009

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

1200 New Jersey Avenue SE
Washington, DC 20590

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Michael K. Walton
Counsel
PACCAR, Inc.
PACCAR Building
777 106th Avenue N.E.
Bellevue, WA 98004

NVS-214gtb
PE09-013

Dear Mr. Walton,

Subject: PE09-013 - Fractured Air Brake Chamber Mounting Brackets

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) opened a Preliminary Evaluation (PE09-013) on February 27, 2009, to investigate allegations that the rear brake air chamber mounting bracket(s) that Kenworth Truck Company and Peterbilt Motors Company, divisions of PACCAR, Inc., installed in the model vehicles listed in Table 1 (below) and used in conjunction with "Series 50" or "Series 55" wide base single tires may be subject to cracking and eventual fracture when the affected vehicle is engaged in normal over-the-highway freight hauling service.

Table 1 – List of PACCAR Vehicles Addressed by PE09-013

Vehicle Make	Vehicle Model	Vehicle Model Years
Kenworth Truck	T2000	2006
Kenworth Truck	T600	2007-2008
Kenworth Truck	T800	2005-2007
Kenworth Truck	W900	2007
Peterbilt Motors Co.	379	2006-2007
Peterbilt Motors Co.	387	2007

Background -

On February 11, 2009, representatives from PACCAR met with representatives from ODI to review the mutual concern that a number of rear axle mounted air chamber brackets had cracked or fractured when used in conjunction with "Series 50" or "Series 55" wide base single tires.



At the February 11, 2009, meeting, PACCAR summarized the results of their testing and investigation findings. ODI generally accepts PACCAR's technical assessment that indicated that certain combinations of the various vehicle systems, specifically (1) the rear drive axle-mounted brake air chamber mounting brackets; (2) the various vehicle suspension systems; and (3) the "Series 50" and "Series 55" wide base single tires interact in a manner that can impose a significantly higher magnitude and frequency of forces on the affected air chamber bracket. As a consequence, the bracket may develop fatigue cracks which can propagate and, if undetected and unremedied, lead to a complete fracture of the affected air chamber mounting bracket.

The primary unresolved issues appear to be:

- (1) Assessing the extent to which a fractured rear axle air chamber mounting bracket poses a potential risk to highway safety;
- (2) Determining the extent to which a crack that has developed in the affected bracket is "detectable" and/or provides "prior warning" ostensibly enabling detection and replacement of the affected bracket(s) before complete fracture (and its associated safety risks) occurs;
- (3) Determining the most appropriate data-justified notification and remedy program for each of the various vehicle suspensions / air chamber mounting orientations based on:
 - (a) The indicated failure rates; and/or
 - (b) The anticipated and/or perceived safety risks; and/or
 - (c) The likelihood of detection through increased / heightened maintenance (inspection) attention.

On February 26, 2009, in response to ODI's request, PACCAR provided a copy of the warranty claim information that PACCAR had summarized and presented at the February 11, 2009, meeting and later supplemented this information with additional detail and analysis.

PACCAR has emphasized that the available data indicates that the warranty claim count (401 warranty claims) and warranty claim rate (8.8% for claims citing a "broken" or "cracked" air chamber mounting bracket) associated with the Kenworth "AG400/460" appears to be a paramount concern because the warranty claim count and warranty claim count and rate is significantly greater than other suspension combinations.

ODI has noted the relative performance difference but maintains that the warranty claim counts (109 and 72 warranty claims respectively) and warranty claim rate (3.1% and 1.8% respectively) --- while less than that of the "AG400/460" ---- is unacceptably high for both the Kenworth "AG380" and Peterbilt "FlexAir" suspensions.

This above-referenced warranty data is summarized in Table 2 below.

Table 2 – PACCAR Warranty Claim Information –Air Chamber Mounting Brackets

Vehicle Make	Suspension Designation	Warranty Claim Count – Claims indicating “cracked” and “broken” air chamber mounting brackets	Warranty Claim Rate – Claims indicating “cracked” and “broken” air chamber mounting brackets
Kenworth	AG400/460	401	8.1%
Peterbilt	FlexAir	109	3.1%
Kenworth	AG380	72	1.9%

Source: PACCAR data presented at February 11, 2009, meeting and subsequent supplement providing claim details.

In order for my staff to further evaluate this issue, ODI is requesting that PACCAR, Inc. provide certain information.

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

- **Subject Vehicles:** all vehicles identified in Table 1 (above) equipped with “Series 50” or “Series 55” single rear tires. .
- **Subject Component(s):** all brackets installed in the “subject vehicles” intended to mount and support the air brake chamber(s) to the rear axle(s).
- **Alleged Defect:** any crack or fracture in the “subject component(s)”
- **PACCAR, Inc.:** (“PACCAR”): 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 to a consultant) by or under the control of PACCAR (including all business units and persons previously referred to), who are or, in or after 2004 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;
 - 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; or

e. Management of any litigation involving PACCAR's products that relate to the alleged defect.

- **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 PACCAR, 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.

Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. 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 PACCAR's response to each request, identify the source of the information and indicate the last date the information was gathered.

To the extent possible, provide the requested information in Microsoft Access 2003 or Excel 2003 electronic format.

Kenworth Fleets Operating "Subject Vehicles" -

1. (A) Identify the ten fleets that operate the greatest number of "subject vehicles" manufactured by Kenworth.
- (B) For each fleet identified in response to Request No. 1(A) above, provide a table that summarizes (a) the quantity of subject vehicles being operated at the identified fleet by model and model year; (b) the quantity of rear air chamber brackets that the identified fleet has reported cracked or broken by model and model year; (c) the inspection, maintenance, and/or repair and/or replacement program, if any, recommended by Kenworth applicable to each identified fleet.
- (C) For each fleet identified in response to Request No. 1(A) above, provide a table that identifies the fleet contact name and phone number.

Provide the table in Microsoft Access 2000, Excel 2000, or a compatible format, entitled "PE09-013, Request Number One – Kenworth Fleet Information."

Peterbilt Fleets Operating "Subject Vehicles" -

2. (A) Identify the ten fleets that operate the greatest number of "subject vehicles" manufactured by Peterbilt.
- (B) For each fleet identified in response to Request No. 2(A) above, provide a table that summarizes (a) the quantity of subject vehicles being operated at the identified fleet by model and model year; (b) the quantity of rear air chamber brackets that the identified fleet has reported cracked or broken by model and model year; (c) the inspection, maintenance, and/or repair and/or replacement program, if any, recommended by Peterbilt applicable to the identified fleet.
- (C) For each fleet identified in response to Request No. 2(A) above, provide a table that identifies the fleet contact name and phone number.

Provide the table in Microsoft Access 2000, Excel 2000, or a compatible format, entitled "PE09-013, Request Number Two – Peterbilt Fleet Information."

3. Provide PACCAR's, Kenworth's and/or Peterbilt's assessment of the difference in stopping distance performance between a representative vehicle being operated with a single fractured rear axle-mounted air chamber mounting bracket compared to the same vehicle with all vehicle system brakes fully functioning and adjusted operating at highway speed (e.g. traveling at approximately 60 MPH) and then subjected to a "full" pressure brake application such as might be required to avoid striking an object in the roadway.

This analysis should address the anticipated effects across a spectrum of vehicle load and configurations including, but not limited to the "subject vehicle" hauling a fully loaded trailer; hauling an unloaded trailer, and operating "bobtail" (without a trailer attached), and operated on level and on downhill grades.

4. Provide a copy of all analysis, calculations, estimates, test results (summaries), and the like that PACCAR, Kenworth and/or Peterbilt has conducted to evaluate the effect of a single cracked or fractured air chamber mounting bracket on vehicle stopping distance when subjected to a "full" pressure brake application in a vehicle operating at highway speeds (i.e. traveling at approximately 60 MPH).
5. Provide a copy of all analysis, calculations, estimates, forecasts (e.g. Weibull or equivalent), that PACCAR, Kenworth and/or Peterbilt has conducted to evaluate the trends / behavior / characteristics of the failure rates exhibited and/or forecast for the "alleged defect" in the "subject components."
6. Provide an image copy of the field reports (NSRs) summarized on Slide 7, "Field Reports (NSR's)" of the February 11, 2009, presentation.
7. Slide # 16 that PACCAR presented to ODI on February 11, 2009, depicts a 4.0" long crack having developed at a PACCAR-estimated 1,784,000 miles based on modeling / simulation in conjunction with laboratory testing. The photograph is captioned, "Stopping Distance Affected."

Provide the basis for PACCAR's assessment that (as stated in the photo caption) "Stopping Distance [is] affected" and provide a quantified estimate of the increase in stopping distance that PACCAR would anticipate to be associated with an unfractured air chamber bracket exhibiting the as-depicted 4" long crack.

8. Furnish PACCAR's detailed opinion of the alleged defect in the subject vehicles including but not limited to:
 - (A) Increased stopping distance, especially during a high pressure brake applications at highway speeds;

- (B) Road debris, if the air chamber mounting bracket were to fracture and the then-securing air hoses abrade and separate allowing the air chamber to fall away from the vehicle at highway speeds; and
- (C) Risk that a vehicle will be unable to hold grade when parking, especially a bobtail tractor (no trailer attached) equipped with two (rather than four) spring brakes.

Include an assessment of the following:

- (a) the causal or contributing factors;
 - (b) the failure mode;
 - (c) the risk to motor vehicle safety that it poses;
 - (d) what warnings, if any, are provided to the operator and other persons.
9. Provide a table that summarizes (A) the recommended maintenance schedule(s), interval(s), and/or frequency and (B) the associated recommended maintenance action issued by (A) Kenworth and/or (B) Peterbilt that PACCAR, Kenworth, and/or Peterbilt believe are appropriate and/or adequate for directing service technicians and/or drivers to detect a crack in the "subject component" installed in the "subject vehicles."

Provide a copy of each of the identified maintenance instruction(s) and highlight those portions of the instructions that describe the pertinent inspection / maintenance instruction(s).

10. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that PACCAR, Kenworth, and/or Peterbilt 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 PACCAR, Kenworth, and/or Peterbilt is planning to issue within the next 120 days.

This letter is being sent to PACCAR 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. PACCAR's failure to respond promptly and fully to this letter could subject PACCAR 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 \$16,050,000 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 69 Fed. Reg. 57864 (Sep 28, 2004)). This includes failing to respond to ODI information requests.

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

PACCAR's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office **April 29, 2009**.

Please refer to PE09-013 in PACCAR's response to this letter. If PACCAR finds that it is unable to provide all of the information requested within the time allotted, PACCAR must request an extension from me at (202) 366-4933 no later than five business days before the response due date. If PACCAR 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 PACCAR then has available, even if an extension has been granted.

If PACCAR 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, PACCAR 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-110), National Highway Traffic Safety Administration, **Room W41-227, 1200 New Jersey Avenue SE, Washington, D.C. 20590**. PACCAR 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. Tom Bowman of my staff at (202) 366-2583.

Sincerely,



Richard Boyd, Chief
Medium and Heavy Duty Vehicle Division
Office of Defects Investigation