



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

# Memorandum

Subject: **Test Request:** Strick Semi Trailer Wheel ends

Date: AUG 22 2003

From: Kathleen C. DeMeter, Director  
Office of Defects Investigation

Original Signed By

Reply to  
Attn. of: NVS-214ns  
PE03-027

To: Russ Kirkbride  
Vehicle Research and Test Center

This requests the Vehicle Research and Test Center (VRTC) to conduct the work described below.

**BACKGROUND:** On June 30, 2003, ODI opened a Preliminary Evaluation (PE03-027) to investigate allegations of bearing failures in 1997 through 2003 Strick semi trailers. Copies of the PE opening resume and IR response are attached.

A fleet owning 3630 trailers reported to ODI that it had experienced 55 failures, 26 of which were bearing failures, 15 involved fires, and another 14 were wheel separations.

Strick's response to ODI's IR indicated that this is the only fleet experiencing problems of this magnitude. Two other fleets have been paid warranty claims, but no other fleets have complained. The response also indicated that there had been 8 changes to the instructions for wheel end lubrications. In all cases, Mobile 007 semi fluid grease was used, however either the level of fill was changed or the inspections interval was changed.

**SCOPE:** The subject vehicles are 1997 through 2003 Strick semi trailers equipped with a greased hub. The population is 10,563 trailers.

## **OBJECTIVES:**

ODI's objective for this test program is to determine the reason that the bearings are failing. That is, whether it is due to a defective bearing, insufficient lubrication, maintenance procedures, etc.



**SUGGESTED PROTOCOL:**

- I. Perform metallurgy on supplied inner and outer wheel bearings.
- II. Perform hardness tests on roller bears and bearing race, and compare to specifications.

**RECOMMENDED APPROACH:** Use bearings supplied by ODI and acquired from complaint fleet and conduct testing in consultation with ODI.

**SCHEDULE:** The target completion date for this test program is to be coordinated with ODI.

**ADDITIONAL INFORMATION:** The ODI investigating engineer is Nate Seymour. All questions concerning the testing should be directed to him, at (202) 366-6965.

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Enclosure

