



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

Memorandum

Subject: **TEST REQUEST: 2002 Toyota Tundra (EA04-024)**
Sent via fax transmission

Date: **NOV 30 2004**

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

Reply to
Attn. of:

**NVS-213cat
EA04-024**

To: Michael Monk, Director
Vehicle Research and Test Center

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

BACKGROUND:

The Office of Defects Investigation (ODI) is currently investigating alleged ball joint failures in 2002 MY Toyota Tundra vehicles (EA04-024). During the Preliminary Evaluation (PE04-040), complaints received by ODI and Toyota indicated that the front suspension (tension-type) lower ball joint failed while driving causing the suspension to collapse and resulting in a loss of vehicle control.

During PE04-040, ODI's analysis showed that of the 15 lower ball joint separations, 11 were on four-wheel drive vehicles (24.2 per 100,000 vehicles), which make up approximately 40% of the 2002 MY Toyota Tundra population (45,448 vehicles).

OBJECTIVE:

The objectives of this testing are to obtain MY 2001-2002 Toyota Tundra vehicles to assess and measure the performance of the front suspension lower ball joint assemblies.

RECOMMENDED APPROACH:

1. Develop a test survey vehicle matrix and procedure in conjunction with ODI to complete the objectives above.
2. Survey front suspension lower ball joint assemblies on MY 2001-2002 Toyota Tundra vehicles to determine the following:
 - a. Ball joint assembly free play;
 - b. Ball joint turning torque; and



- c. The possible cause for any assembly not being within Toyota's maximum free play specification.
3. Obtain some front suspension lower ball joint assemblies that are out of Toyota's free play specification from the vehicles surveyed, as well as, some field return ball joint assemblies that have separated to determine the possible cause of failure.
4. Conduct any other necessary tests on ball joint assemblies, or components thereof, to accomplish the above objectives.

TEST VEHICLE(S):

In coordination with ODI, the Vehicle Research Test Center shall obtain MY 2001-2002 Toyota Tundra vehicles as required for testing.

ADDITIONAL INFORMATION:

The project engineer is Cheryl Tuosto-Rose (202-366-1869) who will discuss the details of the testing with your engineers. We would like to have VRTC's proposal of the procedure prior to test startup.

FINAL REPORT:

It is requested that the test work and draft report be completed as scheduling allows in coordination with ODI.

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