TOYOTA

10V-218 (4 pages)

TOYOTA MOTOR NORTH AMERICA, INC.

WASHINGTON OFFICE

601 THIRTEENTH STREET, NW, SUITE 910 SOUTH, WASHINGTON, DC 20005

FAX: (202) 463-8513

TEL: (202) 775-1700

May 21, 2010

Mr. Daniel C. Smith Associate Administrator for Enforcement National Highway Traffic Safety Administration 1200 New Jersey Avenue, SE Washington, DC 20590

Re: 2009 and 2010 MY Lexus LS Variable Gear Ratio Steering (VGRS)

Part 573, Defect Information Report

Dear Mr. Smith:

In accordance with the requirements of the National Traffic and Motor Vehicle Safety Act of 1966 and 49 CFR Part 573, on behalf of Toyota Motor Corporation ["TMC"], we hereby submit the attached Defect Information Report concerning a voluntary safety recall of certain Lexus LS vehicles to address an issue with the programming of the VGRS ECU.

Should you have any questions about this report, please contact me at (202) 775-1707.

Sincerely,

TOYOTA MOTOR NORTH AMERICA, INC.

Chris Santucci

Manager

Technical & Regulatory Affairs

DEFECT INFORMATION REPORT

1. <u>Vehicle Manufacturer Name:</u>

Toyota Motor Corporation. ["TMC"] 1, Toyota-cho, Toyota-city, Aichi-pref., 471-8571, Japan

Affiliated U.S. Sales Company

Toyota Motor Sales, USA, Inc. ["TMS"] 19001 South Western Avenue, Torrance, CA, 90509

Manufacturer of Steering Control ECU:

DENSO CORPORATION

1-1, Showa-cho, Kariya-city, Aichi-pref., 448-8661, Japan

Telephone: +81-566-25-5511

2. <u>Identification of Affected Vehicles:</u>

Based on production records, we have determined the possible affected vehicle population as in the table below.

Make/	Model	Manufac- VIN		VIN	Production
Car Line	Year	turer	VDS	VIS	Period
Lexus LS460/ LS460L	2009 MY	ТМС	CL46F#	95004456~95004625	August 20, 2009
			DL46F#	95000964~95000976	September 28, 2009
	2010 MY		BL5EF#	A5094610~A5099031	November 18, 2009 - May 13, 2010
			GL1EF#	A5038166~A5040664	
			GL5EF#	A5038149~A5040695	
			CL1EF#	A5005866~A5007811	
			CL5EF#	A5005833~A5007834	
			DL1EF#	A5001281~A5002321	
			DL5EF#	A5001275~A5002345	
Lexus LS600h/ LS600hL	2010 MY		DU1EF#	A5011084~A5012817	November 20, 2009
			DU5EF#	A5012468~A5012561	May 13, 2010

Note: Although the involved vehicles are within the above VIN ranges, not all vehicles in these ranges were sold in the U.S.

No other Lexus or Toyota models sold in the United States are affected, because no other model is equipped with the same VGRS system.

3. Total Number of Vehicles Potentially Affected:

Approximately 3,800 units

4. Percentage of Vehicles Estimated to Actually Experience Malfunction:

Unknown

5. <u>Description of Problem:</u>

On certain 2009 and 2010 Model Year Lexus LS vehicles the Steering Control ECU programming for the Variable Gear Ratio Steering (VGRS) system can cause the steering wheel to become off-centered by a maximum of up to 90 degrees under certain limited circumstances. If the driver has fully turned the steering wheel and then very quickly attempts to turn it back to the center position, the steering wheel may temporarily become off-centered.

6. <u>Chronology of Principal Events:</u>

March 2010: TMC received information from the Japanese market that a driver noticed the steering wheel became approximately 90 degrees off-centered while driving.

March through May 2010: Toyota undertook an investigation to understand the cause in scope of the reported phenomenon. It was found that the center position of the steering wheel may temporarily become significantly off-centered if a driver returns the steering wheel very quickly from a fully turned position. The cause was traced to a change made in August 2009 to the programming of the Steering Control ECU for the VGRS system on 2009 and 2010 Lexus LS models. The programming logic that protected the system when larger than normal steering operating effort is applied at a fully turned position of the steering wheel had been changed to prevent warning light illumination due to lock holder slippage inside the VGRS actuator. Technical analysis found that this change leads to operation of the system protection logic when normal steering operating effort is applied at a fully turned position of the steering wheel, causing the wheel to become off-centered by a maximum of up to 90 degrees if it is returned very quickly. It was also confirmed that the VGRS system will self-correct the steering wheel off-center condition as the vehicle is driven for a few seconds. In early May, Toyota received a field report from the U.S. market regarding this phenomenon.

May 17, 2010: Based on the investigation results above, TMC decided to conduct a voluntary recall campaign. This recall campaign will also be conducted in Canada, Australia, and other countries.

7. <u>Description of Corrective Repair Action:</u>

All known owners of the subject vehicles will be notified by first class mail. Lexus dealers will replace the Steering Control ECU.

Reimbursement Plan for Pre-notification remedies for Lexus

As the owner notification letter will be mailed out well within the active period of the Lexus New Vehicle Limited Warranty ("Warranty"), all involved vehicle owners for this recall would have been provided repair at no cost under the Lexus Warranty.

8. <u>Recall Schedule</u>:

TBD

Copies of the owner notification and dealer instructions will be submitted as soon as they are available.

9. <u>Distributor/Dealer Notification Schedule</u>:

TBD