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By Recall Management Division at 9:10 am, Nov 07, 2013

**Toyota Motor Engineering &
Manufacturing North America, Inc.**

Vehicle Safety & Compliance
Liaison Office
Mail Code: S-104
19001 South Western Avenue
Torrance, CA 90501

November 7, 2013

Ms. Nancy Lummen Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attn: Recall Management Division (NVS-215)
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Certain Toyota Tacoma Vehicles
Part 573, Defect Information Report

Dear Ms. Lewis:

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 Toyota Tacoma vehicles to address an issue with the engine valve springs.

Should you have any questions about this report, please contact me directly.

Sincerely,



Abbas Saadat
Vice President
Toyota Motor Engineering & Manufacturing
North America, Inc.

Enclosures
Part 573, Defect Information Report

DEFECT INFORMATION REPORT

1. Vehicle Manufacturer Name:

Toyota Motor Manufacturing, Texas, Inc. ["TMMTX"]
1 Lone Star Pass, San Antonio, Texas 78264

Affiliated U.S. Sales Company

Toyota Motor Sales, USA, Inc. ["TMS"]
19001 South Western Avenue, Torrance, CA 90501

Manufacturer of valve spring:

Chuo Spring Co., Ltd.
68 Aza Kamishiota, Narumi-cho, Midori-ku,
Nagoya-city, Aichi-pref, 458-8505

Country of Origin: Japan

2. Identification of Involved Vehicles:

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

Make/ Car Line	Model Year	Manufac- turer	VIN		Production Period
			VDS	VIS	
Toyota/ Tacoma	2013 - 2014	TMMTX	*X4*N*	DX018179 – EX037696	July 1, 2013 through October 11, 2013

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

The engines in the involved vehicles contain valve springs produced by one of two suppliers. Vehicles within the above VIN range which contain valve springs not produced by the supplier identified above are not involved in this recall. The total number of vehicles below includes only those that contain the affected valve springs.

No other Toyota or Lexus vehicles sold in the U.S. contain the same valve springs as the involved vehicles.

3. Total Number of Vehicles Involved:

3,795

4. Percentage of Vehicles Estimated to Actually Contain the Defect:

Unknown

5. Description of Problem:

The engines in the involved vehicles contain valve springs which could have been produced with corrosive pitting on the surface of the spring due to improper maintenance of manufacturing equipment by one of two suppliers. The corrosive pitting could lead to fatigue cracks, which could result in breakage of the valve spring over time. If this occurs, the driver can notice an abnormal noise and rough engine performance. In some cases, the engine could fail and stop while the vehicle is being driven, increasing the risk of a crash.

6. Chronology of Principal Events:

June – early August 2013

Toyota received a field report from the Japan market indicating an abnormal noise and engine shaking. The inspection of the recovered engine assembly confirmed a broken valve spring. Further investigation of the broken valve spring revealed that there was corrosive pitting on the spring surface around the fracture point and the fracture appeared to be a result of fatigue cracks potentially originating from the pits. In addition, trace amounts of chloride were found around these pits by EPMA (Electron Probe Micro Analyzer).

Toyota inspected valve springs in production and found that a number of valve springs produced by one of two suppliers had corrosive pitting on the surface of the spring. Valve springs produced by the other supplier did not have any corrosive pitting. The suspect supplier and Toyota began 100% inspection of the valve springs on August 1, 2013. On the same day, as a result of a review of the manufacturing process, it was found that only valve springs that received surface finishing in a specific nitride furnace had pits; therefore the supplier immediately suspended use of this furnace in production.

Mid August – October 2013

The manufacturing processes of both suppliers were investigated, focusing on the differences between the two processes. It was discovered that the suspect supplier used ammonium chloride to accelerate the nitride treatment while the other supplier did not. In addition, since

mid-May 2013, regular cleaning of the furnace lid was not performed by the suspect supplier and the gasket for the lid was not replaced after leakage of ammonium chloride gas through the gasket.

Toyota investigated the cause of the chloride adherence on valve springs in the suspect nitride furnace. It found that chloride crystals could have accumulated on the lid surface and fallen onto the valve springs when opening/closing the lid, which could lead to corrosive pitting on the spring surface. In parallel, Toyota conducted replication testing using valve springs with corrosive pitting and confirmed that fatigue cracks could develop from the pits.

October 31, 2013

Based on the investigation result, Toyota decided to conduct a voluntary safety recall campaign on the involved vehicles to replace the valve springs with new ones.

7. Description of Corrective Repair Action:

All known owners of the involved vehicles will be notified by first class mail to return their vehicles to a Toyota dealer for replacement of the valve springs with new ones.

Reimbursement Plan for pre-notification remedies

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

8. Recall Schedule:

Notifications to owners will be sent in late November, 2013. Copies of the draft owner notification will be submitted as soon as it is available.

9. Distributor/Dealer Notification Schedule:

Notifications to distributors/dealers will be sent in late November, 2013. Copies of dealer communications will be submitted as they are issued.