OMB Control No.: 2127-0004

Part 573 Safety Recall Report

22E-002

Manufacturer Name: Tenneco Automotive

Submission Date: FEB 11, 2022 NHTSA Recall No.: 22E-002 Manufacturer Recall No.: NR



Manufacturer Information:

Manufacturer Name: Tenneco Automotive

Address: 500 North Field Drive

Lake Forest IL 60045

Company phone: 847-482-5003

Population:

Number of potentially involved: 15,200 Estimated percentage with defect: 12 %

Equipment Information:

Brand / Trade 1: MOOG

Model: K80521 Part No.: K80521 Size: NR

Function: Ball Joint

Descriptive Information: MOOG Part No. K80521 is a right-hand lower ball joint intended for aftermarket

installation on MY 2004-2007 Toyota Sequoia and MY2004-2006 Toyota Tundra

vehicles.

This recall covers all parts produced by the supplier during the stated production range. The recall population was determined based upon production records and

sample testing.

This recall involves an estimated 6,837 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Brand / Trade 2: MOOG

Model: K80522 Part No.: K80522 Size: NR

Function: Ball Joint

Descriptive Information: MOOG Part No. K80522 is a left-hand lower ball joint intended for aftermarket

installation on MY 2004-2007 Toyota Sequoia and MY2004-2006 Toyota Tundra

vehicles.

This recall covers all parts produced by the supplier during the stated production range. The recall population was determined based upon production records and

sample testing.

This recall involves an estimated 6,540 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Brand / Trade 3: NAPA

Model: NCP2601633 Part No.: NCP2601633

Size: NR

Function: Ball Joint

Descriptive Information: NAPA Part No. NCP2601633 is a right-hand lower ball joint intended for

aftermarket installation on MY 2004-2007 Toyota Sequoia and MY2004-2006

Toyota Tundra vehicles.

This recall covers all parts produced by the supplier during the stated production range. The recall population was determined based upon production records and

sample testing.

This recall involves an estimated 721 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Brand / Trade 4: NAPA

Model: NCP2601634 Part No.: NCP2601634

Size: NR

Function: Ball Joint

Descriptive Information: NAPA Part No. NCP2601634 is a left-hand lower ball joint intended for

aftermarket installation on MY 2004-2007 Toyota Sequoia and MY2004-2006

Toyota Tundra vehicles.

This recall covers all parts produced by the supplier during the stated production range. The recall population was determined based upon production records and

sample testing.

This recall involves an estimated 689 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Brand / Trade 5: ACDelco

Model: 45D2344 Part No.: 45D2344

Size: NR

Function: Ball Joint

Descriptive Information: ACDelco Part No. 45D2344 is a right-hand lower ball joint intended for

aftermarket installation on MY 2004-2007 Toyota Sequoia and MY2004-2006

Toyota Tundra vehicles.

This recall covers all parts produced by the supplier during the stated production range. The recall population was determined based upon production records and

sample testing.

This recall involves an estimated 211 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Brand / Trade 6: ACDelco

Model: 45D2345 Part No.: 45D2345

Size: NR

Function: Ball Joint

Descriptive Information: ACDelco Part No. 45D2344 is a left-hand lower ball joint intended for

aftermarket installation on MY 2004-2007 Toyota Sequoia and MY2004-2006

Toyota Tundra vehicles.

This recall covers all parts produced by the supplier during the stated production

range.

This recall involves an estimated 202 parts of this model/part number.

Affected parts are marked with the following Lot Codes: J4, J5, J6, J7, J8, J9, JX, JZ,

K1, K2, K3 or K4.

Production Dates: APR 01, 2020 - APR 29, 2021

Description of Defect:

Description of the Defect: On some of these parts, the ball joint housing may have inadequate induction

hardening, which may lead to accelerated wear and premature failure.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: Failure of a ball joint while the vehicle is in motion may cause loss of vehicle

control and increase the risk of a vehicle crash.

Description of the Cause: DRiV's analysis to date indicates that the condition resulted from inadequate

induction heat treat process by the supplier.

Identification of Any Warning As the ball joint approaches end of durability, the driver may hear noise and

that can Occur: notice wandering in the steering. If axial looseness is measured during

scheduled maintenance, it will exceed specification.

Involved Components:

Component Name: NR

Component Description: NR

Component Part Number: NR

Supplier Identification:

Component Manufacturer

Name: Senkei Industry Co., Ltd. Address: 305 Takano ROTTP SJO

Shiga Foreign States 5203045

Country: Japan

Chronology:

July 27, 2021: DRiV's labor claim team received a report of a field failure of a lower ball joint. No accident or injury was reported.

August 2, 2021 – September 2, 2021: DRiV analyzed the returned (failed) part and three additional parts (one used part from the field and two new parts from inventory), including internal laboratory tests for stud surface hardness, core hardness and case depth; and for housing surface hardness, core hardness and case depth. DRiV shared the test results with the supplier and tried to engage the supplier to jointly investigate the issue. Parts were placed on internal quality hold on September 2.

September 2 – November 30, 2021: Supplier and DRiV undertook parallel investigations. DRiV's investigation included third-party laboratory testing of 40 samples from various lot codes, focusing on housing surface hardness, core hardness and case depth. A Product Notice was issued to customers (11/22/2021), a copy of which was submitted to NHTSA in accordance with 49 CFR 579.5. Supplier tested additional samples with conflicting results.

December 2, 2021 – December 31, 2021: DRiV undertook additional testing, using three independent labs, of 240 sample parts from various production codes. These tests indicated that some parts manufactured during the production date range identified herein had inadequate induction hardening (although the supplier does not agree with these findings). The issue was escalated to DRiV's Global Warranty Committee.

January 9, 2022: The Global Warranty Committee approved this safety recall.

There are no reports of accidents or injuries related to this condition.

Description of Remedy:

Description of Remedy Program: DRiV has request the return of unsold parts from dealer/distributor inventory for credit. DRiV will work with dealers/distributors in an effort to identify and notify owners who purchased the recalled parts. Owners will be advised to return their vehicle to their service location to have the part inspected and, if necessary, replaced with a remedy part free of charge. Remedy parts are currently available at DRiV's distribution center.

> Pursuant to 49 CFR 577.11(e), DRiV requests that it be exempt from providing notification of a reimbursement plan. Any pre-notification product failure would have been replaced under the manufacturer's limited warranty. Accordingly, no person would be eligible for reimbursement pursuant to 49 CFR 573.13.

How Remedy Component Differs This recall covers parts with a supplier lot code of J4, J5, J6, J7, J8, J9, JX, JZ, from Recalled Component: K1, K2, K3 or K4 stamped on the cover plate in the following part numbers: MOOG Part # K80521 and K80522, NAPA Part # 2601633 and 2601634, and ACDelco Part #45D2344 and 45D2345.

> The remedy parts are manufactured by a new supplier and are visually distinguishable from the recalled parts (i.e., different color housing, different supplier markings and date codes).

> MOOG and NAPA remedy parts will have new part numbers as follows: MOOG K500434 and K500435 NAPA 2601956 and 2601957.

The ACDelco part has been discontinued. Remedy parts will be supplied from DRiV's bulk inventory.

Identify How/When Recall Condition The supplier of the recalled product stopped producing parts for DRiV on was Corrected in Production: April 29, 2021. Parts sourced by DRiV after April 29, 2021 were from a different manufacturer. The first production for DRiV from the different manufacturer was August 31, 2021.

Recall Schedule:

Description of Recall Schedule: DRiV will notify purchasers of this recall as follows: (1) DRiV will notify

owners who purchased the product directly from DRiV using purchasing records available to the company per the "Planned Owner Notification" schedule; (2) DRiV will notify dealers and distributors per the "Planned Dealer Notification" schedule; and (3) DRiV will work with dealers and distributors to identify and notify other affected owners, the timing of which will be dependent upon receipt of owner contact information.

Planned Dealer Notification Date: FEB 21, 2022 - FEB 25, 2022 Planned Owner Notification Date: MAR 07, 2022 - MAR 11, 2022

Purchaser Information:

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name: Not Applicable

Address: NR

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Country: NR

Company Phone: NR

^{*} NR - Not Reported