

# Part 573 Safety Recall Report

# 20E-091

**Manufacturer Name :** Tenneco Automotive

**Submission Date :** DEC 11, 2020

**NHTSA Recall No. :** 20E-091

**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 :** 584

**Estimated percentage with defect :** 1 %

## Equipment Information :

**Brand / Trade 1 :** Ohlins USA, Inc.

**Model :** POS 5N20 Front Strut

**Part No. :** POS 5N20

**Size :** NR

**Function :** Front Strut

**Descriptive Information :** This recall involves Ohlins brand front struts, Part No. POS 5N20, sold as part of two different Ohlins strut kits, each containing two POS 5N20 front struts, along with two rear struts, springs, and associated hardware. (These other components are not affected by this recall.)

Kit No. POZ MN02 was intended for installation on MY 1999 – 2005 Porsche 996 Carrera 4/4S and MY 2001-2005 Turbo/Turbo S vehicles; and Kit Part No. POZ MN05 was intended for installation on MY 2005 – 2012 Porsche 997 Carrera 4 & 4S and MY 2005 - 2013 Turbo/Turbo S vehicles.

This recall covers the full production range for this part. Assembly of kits containing the subject front strut was suspended as of August 11, 2020; the “Production End Date” of July 6, 2020 represents the approximate last production date of kits shipped to customers by Ohlins USA.

**Production Dates :** SEP 26, 2013 - JUL 06, 2020

## Description of Defect :

**Description of the Defect :** Due to a design compatibility issue related to the interface between the vehicle’s top mount and the strut, the pin of the strut may experience excessive stress during maximum steering, which can lead to fatigue and, potentially, breakage of the pin.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If the pin fails, it will result in the separation of the strut from the vehicle and compromise front-wheel control, increasing the risk of a vehicle crash.

Description of the Cause : Due to the design of the original equipment top-mount, the top pin of the strut is susceptible to excessive stress during full steering maneuvers. This condition can lead to fatigue in the top pin material. The potential failure results from an incompatibility between the OE top mount and the strut, resulting in potential excessive stress.

Identification of Any Warning that can Occur : NR

## Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

## Supplier Identification :

### Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

## Chronology :

6/24/20: Initial report regarding vehicle with two broken front struts communicated to Ohlins Sweden (no accident or property damage). Initial information indicates incorrect installation.

6/24/20: Ohlins Sweden R&D team initiates engineering investigation.

6/26 - 7/12/20: Analysis of possible root cause started (Ishikawa), including mounting errors, changed design of OEM parts, problem with worn OEM top mounts, over-tightening of top pin, etc.

7/14/20: As a precaution, Ohlins Sweden suspends shipments pending completion of engineering analysis.

7/21/20: Second report of broken driver-side top pin on 997 Turbo received (no accidents or damage).

8/11/20: Ohlins Engineering conducts first mounting test on 996 vehicle in Sweden. Testing continues in August and September to determine if mounting error can occur, if over-tightening of the top pin can cause the problem, if worn OEM top mount can cause excessive forces into strut or top pin, if parts in OEM top mount and

interface to Öhlins strut can rotate causing excessive forces. Some potential causes ruled out, but difficult to draw conclusions for root cause until failed parts could be analyzed.

9/17/20: Failed part received by Ohlins Sweden.

10/20 – 11/20: Testing performed with 2nd vehicle (997 Turbo) to identify high stress.

11/4/20: Material analysis confirms materials are to specification; no manufacturing defect identified.

11/12/20: Complete FEA model to calculate bending torque from top mount and correlate measurements on vehicle.

11/12 – 12/4/20: Validation of potential root cause.

11/17/20: Engineering team preliminarily concludes interface between strut and OEM top mount is likely root cause.

11/30/20: Findings of investigation reviewed; decision to escalate issue to Tenneco Global Warranty Committee (GWC).

12/4/20: GWC reviews results of investigation and decides to initiate this safety recall.

Ohlins USA is not aware of any accidents or injuries related to this issue.

## Description of Remedy :

**Description of Remedy Program :** Ohlins will request the return of all unsold kits containing the subject part from dealer/distributor inventory for a full refund. All owners who purchased one of the kits (POZ MN02 or POZ MN05) will receive a replacement front strut (POS 5N20), along with a new top mount interface solution that will resolve the incompatibility, free of charge. The replacement strut will be permanently marked with a revision stamp to distinguish the replacement strut from recalled struts.

Ohlins will submit a Reimbursement Program applicable to this recall.

**How Remedy Component Differs from Recalled Component :** The remedy incorporates an updated top mount interface solution that prevents stress from occurring during vehicle operation. As it is not possible to determine whether an installed strut (POS 5N20) has experienced excess stress during its life, owners will receive a new front strut (same part, Part No. POS 5N20), along with a top mount interface solution that will address the compatibility issue. New, replacement front struts will be uniquely and permanently marked to distinguish them from recalled parts. At this time, the unique/permanent marking is undetermined, but will be incorporated into customer communications.

**Identify How/When Recall Condition was Corrected in Production :** Assembly of kits containing the subject front strut was suspended as of August 11, 2020, but shipments of the kits to U.S. customers were suspended as of July 14, 2020.

## Recall Schedule :

**Description of Recall Schedule :** Ohlins USA will notify purchasers of this recall as follows: (1) Ohlins will

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

Planned Dealer Notification Date : DEC 21, 2020 - DEC 24, 2020

Planned Owner Notification Date : JAN 04, 2021 - JAN 08, 2021

### **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 : NR

Address : NR

NR

Country : NR

Company Phone : NR

\* NR - Not Reported