

# Part 573 Safety Recall Report

# 21E-100

**Manufacturer Name :** BorgWarner

**Submission Date :** JAN 24, 2022

**NHTSA Recall No. :** 21E-100

**Manufacturer Recall No. :** NR



## Manufacturer Information :

**Manufacturer Name :** BorgWarner

**Address :** 3800 Automation Ave.  
Auburn Hills MI 48326

**Company phone :** 8647109450

## Population :

**Number of potentially involved :** 331

**Estimated percentage with defect :** 100 %

## Equipment Information :

**Brand / Trade 1 :** Delphi Aftermarket

**Model :** Tie rod TA5323

**Part No. :** TA5323

**Size :** 319 mm

**Function :** Wheel articulation

**Descriptive Information :** BorgWarner determined the Inner Tie Rod recall population based on information from the manufacturer, Aydinlar Yedek Parca San Ve Tic. A.S. ("AYD"), that its manufacturing process contained a potentially insufficient rolling operation of metal and a wrong design in housing and ball joint between 2018 and 2019. BorgWarner was advised by AYD that the manufacturing process had been corrected to address these process issues in January 2020. As a result, BorgWarner identified the subject population as all Inner Tie Rods purchased from AYD in 2018 and 2019 for sale in the independent aftermarket.

**Production Dates :** JAN 01, 2018 - JAN 01, 2020

## Description of Defect :

**Description of the Defect :** The potential defect is insufficient retention of the ball pin in the housing of the Inner Tie Rod assembly, which connects the steering rack to the Outer Tie Rod End.

**FMVSS 1 :** NR

**FMVSS 2 :** NR

**Description of the Safety Risk :** The potential defect may cause the Inner Tie Rod to become detached from the Steering Rack, causing a partial loss of steering to the vehicle. This could increase the risk of a crash, particularly at low speeds.

**Description of the Cause :** The root cause of the potential defect was determined to be insufficient

rollover of housing caused by the manufacturing process. The housing and ball joint design also contributed to poor process capability.

**Identification of Any Warning that can Occur :** In some cases, there may be no warning before the Inner Tie Rod detaches. However, in some cases if the inner tie rod is assembled out of specification, an installer may feel excessive play/loose joint prior to installation.

## Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

## Supplier Identification :

### Component Manufacturer

Name : Aydinlar Yedek Parca San Ve Tic. A. S.

Address : NR

Foreign States

Country : Turkey

## Chronology :

On October 2, 2021, BorgWarner was notified of a potential Inner Tie Rod failure. BorgWarner communicated with AYD and instituted a containment and sort process.

In November 2021, AYD conducted sample lot testing of the subject Inner Tie Rods, with BorgWarner's review, and certain lots failed pull out testing. Borgwarner's pull out test specification is a minimum of 30 kN. However, pull out test specification of the Inner Tie Rods produced in 2018 and 2019 by AYD was about 10 kN.

## Description of Remedy :

**Description of Remedy Program :** BorgWarner has identified 404 Inner Tod Rods at issue, 331 of which were sold to direct customers. BorgWarner has already quarantined all suspect product remaining in its inventory. BorgWarner has also requested return of all suspect product from sold-to customers and will replace suspect product, free of charge, with product produced using the corrected manufacturing process. Customers have already returned or committed to return 106 of the suspect Inner Tie Rods.

How Remedy Component Differs from Recalled Component :

BorgWarner purchased these parts from AYD. BorgWarner understands that AYD's manufacturing process that resulted in the potential defect had contained a potentially insufficient rolling operation of metal and also wrong design in housing and ball joint between 2018 and 2019. AYD corrected its manufacturing process in January 2020 to address the previously insufficient rolling operation and also re-designed Housing in July 2020. As a result of the test on D and E lots, Borg Warner understands that the inner tie rods produced by AYD following these corrective actions are safe and secure products. BorgWarner has also seen that the pull out test result for inner tie rods produced from 2020 onward is now higher than BorgWarner's specifications.

Identify How/When Recall Condition was Corrected in Production :

(same answer as above)

## Recall Schedule :

Description of Recall Schedule :

BorgWarner has communicated with the twenty-five affected customers (distributors) who purchased the Inner Tie Rod parts at issue, that they should be returned and not sold to customers, and that BorgWarner will reimburse customers for any returned parts based on its existing warranty return process. BorgWarner will further provide notification to its distributor customers and will request that these distributors notify their customers regarding this return campaign.

Because all of the subject tie rods were sold in the automotive aftermarket via distributors and retailers, BorgWarner does not have information regarding owners. We are working with our customers to gather this information, and have directed our customers to reach out to any owners for whom they have contact information.

Planned Dealer Notification Date : DEC 14, 2021 - DEC 01, 2022

Planned Owner Notification Date : JAN 03, 2022 - DEC 01, 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 : NA

Address : NA

NA NA 00 NA

Country : NR

Company Phone : 1111111111

\* NR - Not Reported