



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: RQ 22-003
Date Opened: 08/08/2022
Investigator: Ayesha Huertas-Torres
Approver: Stephen Ridella
Subject: Seat Belt Pretensioners May Rupture

Date Closed: 05/26/2023
Reviewer: Peter Kivett

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Hyundai Motor America, Kia America, Inc.
Products: 2020-2022 Hyundai/Kia Multiple Vehicle Models
Population: 322,300 (Estimated)

Problem Description: During a vehicle crash, the driver and/or right front passenger seat belt pretensioner may deploy abnormally and rupture releasing shrapnel inside the passenger compartment.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	0	0
Crashes/Fires:	0	0	0
Injury Incidents:	0	3	3
Number of Injuries:	0	3	3
Fatality Incidents:	0	0	0

ACTION / SUMMARY INFORMATION

Action: This Recall Query is closed; 11 safety recalls (see below).

Summary:

On August 8, 2022, the Office of Defects Investigation (ODI) opened this Recall Query (RQ) based on 3 incidents alleging front seat belt pretensioners that may rupture during deployment, on model year (MY) 2020-2022 of various Hyundai and Kia Models, resulting in 3 injuries (note: one incident occurred outside the U.S. and its territories).

Between October 2021 and March 2023, Hyundai and Kia have filed the following 11 safety recalls for pretensioner rupture: NHTSA Recall No. 21V-796, 22V-069, 22V-123, 22V-127, 22V-218, 22V-354, 22V-447, 22V-458, 22V-816, 23V-094, and 23V-210. Hyundai/Kia have stated that the abnormal deployment of the pretensioners is due to over-pressurization of the pretensioner pipe that can cause metal fragments to enter the vehicle occupant compartment, which can result in injury to vehicle occupants.

The various makes/models covered by the above recalls include approximately 405,900 certain 2020-2022 Hyundai Accent, 2021-2022 Hyundai Elantra and Elantra HEV, 2021-2022 Hyundai Santa Fe HEV, 2022-2023 Hyundai Santa Fe PHEV, 2020-2022 Hyundai Venue, 2021-2023 Genesis G80, 2023 Genesis G80 EV, 2023 Genesis G90, 2023 Genesis GV60 EV, 2022-2023 Genesis GV70, 2021-2023 Genesis GV80, 2021-2022 Kia Sorento HEV, and 2022 Kia Sorento PHEV.

In response to ODI's investigation, in December 2022, Hyundai notified ODI that they would be conducting testing to validate subject vehicle seat belt pretensioners. This evaluation included sled testing and software testing which was performed by Hyundai and its suppliers. The tests were intended to evaluate pretensioner deployment characteristics based on the unique deployment signature of the subject and peer vehicles. ODI met with representatives from Hyundai on several occasions during the investigation to discuss testing progress and data. As a result of the testing, Hyundai was able to simulate the pretensioner failures. It was determined by Hyundai during testing, the front driver-side and/or passenger-side seat belt pretensioners may explode upon deployment in the event of a crash which can

cause metal fragments to enter the vehicle occupant compartment. Hyundai thus notified ODI of their decision to proceed with a safety recall, to expand the scope of the previous safety actions.

In view of the recall actions taken by Hyundai and Kia, ODI concerns have been addressed. The agency reserves the right to take additional action if warranted by future circumstances.