



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 12-029
Date Opened: 10/09/2012
Investigator: Kerrin Bressant
Approver: Frank Borris
Subject: Steering Shaft Universal Joint Failure

Date Closed: 06/26/2013
Reviewer: Jeff Quandt

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Hyundai Motor Company
Products: 2011 Hyundai Santa Fe
Population: 70,000 (Estimated)

Problem Description: If the steering shaft universal joint is improperly assembled, it may separate during use and result in a loss of steering.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	3	3**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	4	4

*Description of Other:

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: The Preliminary Evaluation has been closed.

Summary:

The Office of Defects Investigation (ODI) opened PE12-029 based on one complaint alleging that a fastener became loose in the steering shaft of a model year (MY) 2011 Hyundai Santa Fe vehicle and related Early Warning Reporting field report data. In its response to ODI's information request letter for PE12-029, Hyundai identified a total of four incidents of steering shaft universal joint failure in early production MY 2011 Santa Fe vehicles, including the incidents that had been identified by ODI. Two of the failures occurred at low mileage early in 2011, shortly after vehicle sale, leading to Hyundai's initial investigation. Hyundai attributed the failures to operator error at the vehicle assembly plant in failing to fully assemble the universal joint to the steering column shaft before tightening the universal pinch bolt. The company inspected 680 vehicles at the assembly plant as part of its initial investigation and found no additional indications of improper steering shaft assembly. Hyundai implemented changes in the assembly process to ensure proper steering shaft assembly, including the use of a "go/no go" Gap Gauge to ensure that the universal joint knuckle is fully assembled to the steering column shaft before being fastened. Hyundai believes that the improper assembly affected only a few vehicles and that joints that were not properly assembled should have already failed and the likelihood of additional failures is remote. None of the failures involved vehicles produced after the Gap Gauge implementation on April 27, 2011 and no additional failures have been reported since October 2012. Hyundai will notify ODI if any additional failures are reported to the company through the end of 2013.

A safety-related defect trend has not been identified at this time and further use of agency resources does not appear to be warranted. Accordingly, this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The agency will take further action if warranted by the circumstances.