



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE04-030
 Prompted By: IE04-014, Consumer Complaints
 Date Opened: 03/24/2004 Date Closed: 07/22/2004
 Principal Investigator: Kyle Bowker
 Subject: Steel Wheel Fracture

Manufacturer: Kia Motors America, Inc.
 Products: 2001 Kia Rio
 Population: 24,507

Problem Description: Standard equipped 13x5J steel wheels fracture in a circumferential pattern on the wheel disc at or around the wheel hat area.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	6	25	30
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	576	576

*Description of Other: Warranty claims paid by Kia for replacement of 1 or more wheels for any or unspecified cause.

Action: This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA04-020).

Engineer: Kyle M. Bowker KMB
 Div. Chief: Jeffrey L. Quandt
 Office Dir.: Kathleen C. DeMeter

Date: 07/26/2004
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Summary: On March 24, 2004, the Office of Defects Investigation (ODI) opened a Preliminary Evaluation to investigate alleged steel wheel fractures in certain Model Year (MY) 2001 Kia Rio vehicles. The subject vehicles are equipped with wheels manufactured between May 12 and October 18, 2000. Wheels were manufactured during this period using a tool (ring die) that had improper surface treatment. This allowed tool damage to develop with accumulated use and resulted in an irregular shaped stamping on the wheel disc at the hat area. The irregular shaped hat area creates a stress riser that may lead to the formation of cracks.

ODI is aware of 30 non-duplicative consumer reports alleging wheel fracture and 3 alleged wheel separation incidents on the subject vehicles. Kia has paid 576 warranty claims for wheel replacement on the subject vehicles.

This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA04-020) to further study the scope and safety consequences of this issue.

KMB
7-28-04