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

ODI RESUME

Investigation: PE 06-050
Date Opened: 11/09/2006 Date Closed: 04/09/2007
Principal Investigator: Andrea Noel
Subject: Wheel Failure

Manufacturer: Nissan North America, Inc.
Products: 2006 Nissan 350Z
Population: 27,109

Problem Description: Separation of wheel/tire assembly due to spoke breakage near the wheel hub.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	2	10	10
Crashes/Fires:	1	1	1
Injury Incidents:	1	1	1
# Injuries:	1	1	1
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	9	9

*Description of Other: Nissan warranty claims for cracked wheels

Action: This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA07-005).

Engineer: *Andrea Noel* A.N. Date: *04/09/2007*
Div. Chief: *Jeffrey L. Quandt* Date: *04/09/2007*
Office Dir.: *Kathleen C. DeMeter* Date: *04/09/2007*

Summary: The Office of Defects Investigation (ODI) opened PE06-050 based on two consumer complaints alleging incidents of wheel separation while driving due to spoke fracture. One of the incidents resulted in a crash and serious injury when the separated wheel struck a California Highway Patrol Officer on a motorcycle on the opposite side of the freeway.

During PE06-050, ODI determined that both incidents of wheel separation involved Nissan wheels that were subjected to an aftermarket "re-chroming" process. Both incidents occurred in Southern California. Information provided by Nissan showed that problems with "re-chromed" wheels were concentrated almost exclusively in California. Nissan has issued Dealer Bulletins, most recently in August 2006, warning against "re-chroming" wheels because the process may damage wheels. Nissan also submitted complaints and warranty claims concerning cracked spokes in original equipment Nissan Alloy wheels. These claims and complaints were not concentrated in any particular geographic region, but were few in number. According to Nissan, most Alloy wheels with cracked spokes can be attributed to impact damage.

This investigation has been upgraded to an Engineering Analysis (EA07-005) to further assess the causes of spoke cracking in original equipment Nissan wheels and in wheels subjected to "re-chroming" and to assess the risk of additional wheel separations in the subject vehicles.