



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

ODI RESUME

Investigation: RQ 06-007
Date Opened: 05/24/2006 Date Closed: 10/12/2006
Principal Investigator: Andrea Noel
Subject: Brake Booster Accumulator Failure

Manufacturer: Mitsubishi Caribbean, Mitsubishi Motors North America, Inc.
Products: 2002 Mitsubishi Montero
Population: 23,335

Problem Description: hydraulic brake booster accumulator failure, resulting in extended stopping distance.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	16	7	20
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	58	58

*Description of Other: Warranty claims

Action: RQ06-007 has been closed.

Engineer: Andrea Noel *A.N.*

Date: 10/12/2006

Div. Chief: Jeffrey L. Quandt

Date: 10/12/2006

Office Dir.: Kathleen C. DeMeter

Date: 10/12/2006

Summary: In October 2001, Mitsubishi notified the agency that it would conduct a safety recall (NHTSA Recall No. 01V-254) to remedy a defect condition that could result in a leak of pressurized nitrogen gas from the hydraulic brake booster accumulator in approximately 39,000 model years (MY) 2001-2002 Mitsubishi Montero vehicles produced from December 12, 1999 through June 20, 2001.

According to Mitsubishi, "the accumulator that is installed on the hydraulic brake booster may have been manufactured improperly, which over a period of time may result in leakage of the pressurized nitrogen gas from inside the accumulator. The loss of this gas pressure may result in an abnormal noise from the left side of the dash panel when the brakes are applied, and possibly a delayed first time brake boost assist after the vehicle has been parked for a period of time." During RQ06-007, Mitsubishi indicated that the decision to conduct recall 01V-254 was based on projected failure rates of 36.5% within 2-years of service and 100% in the first 4-years of service.

The Office of Defects Investigation (ODI) opened RQ06-007 based on six complaints of hydraulic brake booster accumulator failure in the approximately 23,335 MY 2002 Montero vehicles that were built after the vehicles recalled in 01V-254. One of the complaints alleged that the failure resulted in a crash. During the investigation, ODI identified 20 consumer complaints and 58 warranty claims related to brake booster accumulator failure in the subject vehicles, resulting in a complaint rate of approximately 85 per 100,000 vehicles and a warranty claim rate of 0.25%. Mitsubishi's projected accumulator failure rates at 2- and 4-years in service for the subject vehicles were 0.5% and 1.3% respectively and ODI's analyses produced similar results.

ODI's investigation found that the incidents of increased brake pedal effort typically occurred within the first few seconds after the engine was started and were accompanied by noise associated with the accumulator charging. ODI's investigation of the crash incident concluded that it could not be attributed to the alleged defect condition. ODI also collected and analyzed data for post-remedy accumulator failures in vehicles that had the 01V-254 repairs completed. Mitsubishi provided data during the investigation that indicated 95% of the recalled vehicles had received the recall remedy. For these vehicles, there were 14 complaints and 249 warranty claims identified, resulting in a complaint rate of 28 per 100,000 vehicles and a warranty claim rate of 0.64%. Analysis of these failures showed a declining trend with increasing vehicle age, with almost half of the warranty claims occurring within the first 12-months after receiving the recall remedy. due to the low failure rates, absence of related crashes, and no indication of increasing failure trends in either the subject vehicles or post-repair recall population 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 continue to monitor complaints and other information relating to the alleged defect in the subject vehicles and take further action in the future if warranted.

A.N. 10/19/06