



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE07-042

Date Opened: 08/14/2007

Date Closed: 11/20/2007

Principal Investigator: Stephen McHenry

Subject: Air Suspension System Failure

Manufacturer: Mercedes-Benz USA, LLC.

Products: 2000 and 2002-2004 My Mercedes-Benz S and SL Class vehicles.

Population: 131,201

Problem Description: The air suspension system may fail, resulting in a gradual reduction of ride height at the affected wheel. Some owners have alleged contact between the fenders and tires.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	4	3	7
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	0	0

Description of Other:

Action: This Preliminary Investigation is closed.

Engineer: Stephen McHenry *SMH 11/21/07*

Date: 11/20/2007

Div. Chief: Jeffrey L. Quandt

Date: 11/20/2007

Office Dir.: Kathleen C. DeMeter

Date: 11/20/2007

Summary: The subject S-class vehicles contain a compressed air suspension system that uses air struts on each of the four wheels in lieu of traditional springs and shock absorbers. These air struts use compressed air to support the weight of the vehicle and control ride height. In the event of the loss of air from the system, an alert will flash on the instrument cluster warning the driver to either drive carefully or to stop the vehicle. The vehicle ride height can be reduced by as much as 105 mm below normal ride height before the full load of the vehicle for that wheel comes to rest on a steel rod, with a rubber stop on the end, located in the shock absorber. This rest-stop condition is designed such that there is no impact on vehicle control. Mercedes-Benz (MBUSA) supplied video showing a vehicle in this condition operating under several different situations including evasive maneuvers demonstrating the ability of the vehicle to be controlled effectively with a ride height reduced to the minimum.

Only those complaints to ODI and MBUSA that alleged a steering interference during a reduced ride height condition were counted in this Resume failure report. Some complaints alleged that with a reduced ride height and a "stop now" warning message there was a rubbing noise when turning, but the ability to steer the vehicle was not compromised. A sampling of warranty claims submitted by MBUSA did not reveal any indicating a loss of control due to an Airmatic system failure. There was one crash reported by MBUSA to ODI but the information available indicated that it related to "suspension systems" and it was not possible to verify that the incident was related to an Airmatic system failure.

Further use of agency resources in this matter does not appear to be warranted. The agency will continue to monitor complaints and other information relating to the alleged defect in the subject vehicles and will take further action in the future if warranted. This preliminary evaluation is closed.

End