



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

ODI RESUME

Investigation: PE 04-004
 Prompted By: OWNER COMPLAINTS
 Date Opened: 01/08/2004 Date Closed: 04/30/2004
 Principal Investigator: NATE SEYMOUR
 Subject: HYDRAULIC PUMP SHAFT FAILURES

Manufacturer: GENERAL MOTORS CORP.
 Products: MY 2000-02 GM 2500 AND 3500 SERIES PICKUP TRUCKS
 Population: 1,137,753

Problem Description: THE HYDRAULIC PUMP SHAFT CAN FRACTURE CAUSING LOSS OF POWER BRAKE AND/OR POWER STEERING, DEPENDING ON THE VEHICLE EQUIPMENT.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	30	261	291
Crashes/Fires:	3	21	23
Injury Incidents:	1	2	3
# Injuries:	1	3	4
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	20,404	20,404

*Description of Other: GM WARRANTY CLAIMS

Action: THIS PE HAS BEEN UPGRADED TO AN ENGINEERING ANALYSIS.

Engineer: Nate Seymour *NS*

Date: 04/30/2004

Div. Chief: Richard Boyd

Date: 04/30/2004

Office Dir.: Kathleen C. DeMeter

Date: 04/30/2004

Summary: THE PRELIMINARY EVALUATION IS BEING UPGRADED. DURING THE EA ODI WILL LIMIT ITS INVESTIGATION TO ONLY THOSE VEHICLES EQUIPPED WITH A HYDRO-BOOST SYSTEM, WHICH PROVIDES POWER ASSIST TO THE BRAKING AND STEERING SYSTEMS. VACUUM BRAKE BOOSTER VEHICLES ARE EXCLUDED. ODI HAS EXPANDED THE SCOPE OF THE EA TO INCLUDE MODEL YEARS 2003 AND 2004, AS DURING THE PE, ODI LEARNED THAT THE HYDROBOOST PUMPS WERE MODIFIED IN FEBRUARY 2004. THEREFORE, ODI HAS EXPANDED THE SCOPE TO INCLUDE THE ADDITIONAL MODEL YEARS.

ODI IS CONCERNED BECAUSE THIS IS A SUDDEN FAILURE THAT AFFECTS TWO CRITICAL SYSTEMS OF THE VEHICLE, BRAKES AND STEERING, AT THE SAME TIME. THE ABILITY OF THE OPERATOR TO HANDLE THE DUAL FAILURES IS A CONCERN. FURTHER, THESE VEHICLES TEND TO BE WORK VEHICLES, WITH SOME OVER 10,000 POUNDS GVWR AND MANY EQUIPPED TO PULL LARGE TRAILERS. DUAL FAILURES OF HEAVILY LOADED VEHICLES AND VEHICLES PULLING TRAILERS FURTHER INCREASES THE SAFETY RISK.

ODI PLANS TO CONDUCT TESTING TO QUANTIFY THE BRAKING AND STEERING PERFORMANCE DEGRADATION AND THE IMPACT ON SAFE VEHICLE CONTROL, WHEN A HYDROBOOST PUMP FAILS.

*NSK
Fixed on
4/30/04*