



U.S. Department of Transportation

National Highway Traffic Safety Administration

# ODI RESUME

IDENTIFICATION: PE02-009  
SUBJECT: Brake power-assist failure  
PROMPTED BY: IE01-061  
PRINCIPLE ENGINEER: Chris Lash

DATE OPENED: 29-JAN-02

MANUFACTURER: Volvo Cars of North America, Inc.  
MODEL: S40 and V40  
MODEL YEAR: 2000  
VEHICLE POPULATION: 35,600

PROBLEM DESCRIPTION: The complaints allege a loss of brake power-assist, which results in higher than normal pedal effort.

### FAILURE REPORT SUMMARY

	ODI	MFR	TOTAL
COMPLAINTS:	11	0	11
CRASHES:	1	0	1
INJ CRASHES:	0	0	0
#INJURIES:	0	0	0
OTHER:	0	0	0
DESCRIPTION OF OTHER:			

ACTION: A Preliminary Evaluation (PE) has been opened.

Engineer: *Chris Lash*  
Date: 1/29/02

Division Chief: *[Signature]*  
Date: 1/29/02

Office Director: *[Signature]*  
Date: 1-29-02

SUMMARY: Of the eleven complaints reported, nine occurred when the engine was cold. This condition appears to be most related to the failure of an auxiliary vacuum pump/motor, which is used in conjunction with engine vacuum to supply power brake assist. Some vehicle owners say that the brake assist returns to normal levels after the pedal is depressed 3 or 4 times.

Volvo Tech Note NO: 52-01, dated April 27, 2001, describes the procedure used to fix a problem with the fuse that protects the brake vacuum assist pump circuit. Moisture in the vacuum pump may cause the fuse to fail which stops the pump from operating.

ODI has received two complaints that allege brake assist failure while driving on the highway, one of these is alleged to have resulted in a crash.

*UNG*  
*1/30/02*