

period of highway driving at low ambient temperatures. To prevent this defect from occurring, the vacuum source of the brake booster was relocated from the base of the carburetor to the intake manifold.

Chrysler stated in its response dated December 2, 1987, "Chrysler has not considered conducting a recall of any nature for the subject condition on U.S. vehicles. It is our evaluation that no such action is necessary."

SERVICE BULLETINS: On November 16, 1987 Chrysler issued an Advanced Service Information Letter to all Chrysler Zone Service Offices. This letter provides an explanation of Chrysler's Canadian power brake assist recall and the necessary corrective actions to be taken should a U.S. vehicle exhibit similar conditions.

DESIGN, MATERIAL AND/OR PRODUCTION MODIFICATIONS: Chrysler relocated the brake booster vacuum source from the carburetor to the intake manifold on 5.2L equipped vehicles during 1987 model year production — early in the model year on the subject truck models and late in the model year on cars. This modification is the same as done on the recalled Canadian market vehicles.

TESTING: N/A

ADDITIONAL INFORMATION: Chrysler contacted each of the consumers which alleged a loss of power brake assist while driving in extremely cold weather and arranged for vacuum source relocation service on each of their respective vehicles.

WARNING SYMPTOMS: There appears to be no warning symptoms immediately prior to an alleged defect occurrence.

CONTRIBUTING FACTORS: It appears that the alleged defect occurs only during extended periods of highway driving in extremely cold temperatures. The four reports provided by Chrysler all occurred in what would normally be considered extremely cold winter temperature states. The states were Alaska, Wisconsin, Montana, and Minnesota.

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FAILURE MODES: Loss of power brake assist after initial brake pedal application as a result of the brake booster vacuum hose port in the base of the carburetor being blocked with frozen moisture after an extended period of highway driving at low ambient temperatures.

MANUFACTURERS EVALUATION OF THE ALLEGED DEFECT: Chrysler's letter of March 2, 1987, describes its evaluation of the alleged defect. "we concluded that potential occurrences of the condition in the U.S. market were isolated, if any, and did not represent an unreasonable risk to motor vehicle safety." It maintains that the differences in problem reporting, weather, and emission systems between U.S. and Canadian market vehicles is significant enough not to warrant a recall of U.S. market vehicles.

REASON FOR CLOSING: Although the alleged defect may occur on subject vehicles operated in extremely cold climates, the nature and scope of the complaints does not indicate that a safety defect trend is present. The reports, provided by Chrysler, of vacuum line freezing and the resultant loss of power brake assist appear to be isolated occurrences. No defect trend has been identified.

M.T. RL
Safety Defects Engineer

2/24/88
Date

I concur:

CH M M
Chief, Engineering and Test Branch

2/27/88
Date

T. J. Williams
Chief, Defect Evaluation Division

2/23/88
Date

Jim Brown
Director, Office of Defects Investigation

3-11-88
Date

000-53

This file contains consumer letters received by the National Highway Traffic Safety Administration which complain of the alleged defect that is the subject of this Engineering Analysis. It also contains correspondence between this agency and the manufacturer on the subject. Portions of that correspondence may be withheld where the manufacturer has claimed that they are confidential pursuant to the Freedom of Information Act, 5 U.S.C. § 552(b)(4) which exempts from disclosure confidential commercial and financial information. Additional documents relating to this engineering analysis may exist, but have not been included in this public file.

000001

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. William R. Kittle
Director, Vehicle Safety and Emissions
Chrysler Corporation
P.O. Box 1919
Detroit, MI 48288

NEF-12rtr-
EA88-001

Dear Mr. Kittle:

This letter is to advise you that the Preliminary Evaluation (PE87-013) pertaining to alleged loss of brake power assist on certain 1984 through 1987 Chrysler Corporation vehicles equipped with the 5.2L engine has been upgraded to an Engineering Analysis (EA88-001) and to request additional information.

For purposes of this information request, the following terms are defined unless otherwise described:

- o Subject vehicles: all 1984 through 1987 Chrysler, Plymouth, Dodge, Plymouth Truck, and Dodge Truck vehicles equipped with the 5.2L engine.
- o Chrysler: all the personnel and files of the Chrysler Corporation including all field personnel.
- o Alleged defect: shall refer to the alleged loss, failure, malfunction, or inadequate performance of the brake power assist and/or the brake system.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to Sections 108 and 112 of the National Traffic and Motor Vehicle Safety Act (the Act), please provide numbered responses to the following items. Please repeat each item verbatim before the response. If any information has been provided to this office in response to a previous information request on this matter, that information need not be resubmitted. All other information must be submitted as requested. The submitted information is to include, but not be limited to, all written reports or documents; transcriptions, notes, or other documentation of oral communications; and information contained on electronic storage media.

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1. Furnish the number of 1987 model subject vehicles sold by Chrysler in the U.S. by make, model, and engine (by VIN code, i.e. P, R, S, T)
2. Furnish the number and copies of all owner reports or consumer complaints received by Chrysler, or of which Chrysler is otherwise aware, pertaining to the alleged defect on the subject vehicles. Furnish all reports or complaints whether or not Chrysler has verified each report.
3. Furnish the number and copies of all other reports, complaints, surveys, investigations, surveys, studies, tests, analyses, service and technical bulletins, dealer notices, etc., from all sources either received or authorized by Chrysler, or of which Chrysler is otherwise aware, pertaining to the alleged defect on the subject vehicles. Furnish all information whether or not Chrysler has verified the information. This should include any and all information which has been distributed electrically/electronically.
4. Identify and describe each accident or subrogation claim (including the names, addresses, and telephone numbers of the owner/occupants involved) of which Chrysler is aware on the subject vehicles which may have occurred due to circumstances, conditions, or problems caused by the alleged defect. Furnish all reports whether or not Chrysler has verified each report.
5. Identify all lawsuits, both pending and closed, by title, location and docket number in which Chrysler is or was a defendant (or codefendant) pertaining to, at least in part, the alleged defect on the subject vehicles. Provide a brief synopsis of each case, including Chrysler's analysis of the incident, the identification of the vehicle (model, series, model year, and VIN), the date of the incident which was the basis for the lawsuit, the date the lawsuit was filed, and the vehicle owner's name, address, and telephone number. Identify all parties involved in the lawsuit.
6. Furnish an updated listing of warranty claim data related to the alleged defect on the subject vehicles. Provide the data in a format consistent with Chrysler's warranty claim data submission of May 13, 1987. Each problem/claim code must be identified. It appears that in Chrysler's responses of March 2, 1987, and May 13, 1987, some warranty claim codes were not clearly identified (i.e., some of the labor operation numbers specified in Chrysler's May 13, 1987 response may not have been clearly identified in Chrysler's description of warranty claim codes submitted on March 2, 1987).

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7. In October of 1986, Chrysler recalled 67,602 1984 through 1987 vehicles equipped with the 5.2L engine for intermittent loss of brake power assist on a second application of the brake pedal in Canada. The defect was a result of the brake booster vacuum hose port in the base of the carburetor being blocked with frozen moisture after an extended period of highway driving at low ambient temperatures. To prevent this defect from occurring, the vacuum source for the brake booster was relocated from the base of the carburetor to the intake manifold.

Indicate whether Chrysler has relocated or will relocate the brake booster vacuum source from the base of the carburetor to the intake manifold on similar U.S. vehicles, either as a design, production, or field modification. If the source was relocated (or will be relocated), describe the modification.

8. Furnish this office a sample of each of the Brake Booster Vacuum Hose Packages and special sockets identified in the Canadian recall report. Indicate whether or not these kits could be used on similar U.S. models.
9. Chrysler's March 2, 1987 response stated: "a total of seventeen vacuum hose port freezing incidents which required correction by rerouting had been reported in the Canadian market. Provide copies of each of these reports."
10. Chrysler's March 2, 1987 response stated: "we attempted to determine the scope of the condition in the U.S. market through contact with our Zone Service Office technical representatives in cold weather areas. We found no awareness of any such reports." Chrysler's March 2, 1987 response included reports regarding consumers Broker and Hively. Broker's report stated "During cold weather -20F or colder, car brakes do not work well if we are road driving - 45 m.p.h. or faster." Broker's state of residence was identified as Alaska. Mr. Hively, a Wisconsin resident, stated "the lack of power brakes is going to kill someone. The cause is filter PN (3)766 429. It filters all the moisture in the line and freezes, causing no vacuum to get to the booster and consequently NO power brakes." Indicate whether or not these reports indicate or appear to indicate "failures" consistent with those reported in the Canadian market.
11. Indicate whether or not Chrysler has considered conducting a recall similar in nature to Chrysler's 83V-019 recall for fuel tank strap corrosion in which the defect occurred in "winter salt zones".

Furnish Chrysler's opinion of the alleged defect in the subject vehicles. Please include an assessment of the following:

- a. the causal or contributory factors which may result in the alleged defect;
 - b. the failure mode;
 - c. the risk to motor vehicle safety created by the alleged defect; and
 - d. any warning of the alleged defect.
13. Furnish a copy of all documents not specifically requested which Chrysler believes are relevant or were used in formulating its assessment of the alleged defect.
14. Furnish any new information of which Chrysler is aware concerning any report, document, or information which may have been previously provided by Chrysler. Also, furnish any additional information of which Chrysler is aware concerning the reports provided by the National Highway Traffic Safety Administration (NHTSA) on this matter.

It is important that Chrysler respond to this letter on time. This letter is being sent pursuant to Section 112 of the Act, which authorizes this agency to conduct any investigation which may be necessary to enforce Title I of the Act. Your failure to respond promptly and fully to this letter may be construed as a violation of Section 108(a)(1)(B) of the Act.

Your written response, in triplicate, referencing the identification codes in the upper right hand corner of page 1 of this letter, must be submitted to this office within 30 working days from your receipt of this letter. If you find that you cannot respond within the allotted time with all the requested information, you must request an extension from the Director, Office of Defects Investigation, no later than 5 working days prior to the due date for your response. A telephone request for an extension may be made to the Director at (202) 366-2850, but it must be confirmed in writing. On-time delivery of partial submissions should be made when circumstances prevent meeting the required delivery schedule.

If any portion of your response is considered confidential information, include all such material in a separate enclosure marked confidential. In addition, you must submit a copy of all such confidential material directly to the Chief Counsel of the National Highway Traffic Safety Administration and comply with all other requirements of 49 CFR Part 512, Confidential Business Information.

If you have any technical questions concerning this matter. please contact Mr. Richard T Reed of my staff at (202) 366-4806.

Sincerely,

isi

Michael B. Brownlee, Director
Office of Defects Investigation
Enforcement

00-0006



W R Kittle

December 2, 1987

Mr. Michael B. Brownlee, Director
Office of Defects Investigation, Enforcement
National Highway Traffic Safety Administration
U. S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Brownlee:

Reference: EA88-001; NE: 12cr

The following and enclosed information is provided in response to your referenced inquiry regarding brake system performance of certain 1984-1987 Chrysler built vehicles. Where appropriate, our responses are limited to an update of our previous March 2, 1987 and May 13, 1987 responses on this subject.

- Q: Furnish the number of 1987 model subject vehicles sold by Chrysler in the U.S. by make, model, and engine (by VIN code, i.e. P, R, S, T).
- A: The requested information regarding the number of 1987 model year subject vehicles produced for sale in the U.S. is provided below.

<u>Model</u>	<u>Engine Code</u>	<u>1987 Model Year</u>
Cars:		
Plymouth Gran Fury	P	7,347
	4	1,748
	S	1,265
Dodge Diplomat	P	13,016
	4	2,653
	S	4,358
Chrysler Fifth Avenue	P	70,579
Trucks:		
Ramcharger	T	17,833
B-Vans/Wagons	T	69,582
	U	304
D-Pickups/Cabs	T	61,137
	U	(*) 226

Chrysler Motors Corporation
300 Chrysler Drive
Warren, Michigan 48090

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A1. (Continued)

Notes:

- Data for entire 1987 model year not an update of previous information.
- Engine Codes
Car: P: standard 2 bbl; 4: heavy duty 2 bbl; S: 4 bbl
Truck: T: 2 bbl; U: 4 bbl
- Canadian recall involved only 2 bbl engine versions.
- (*) Error in 5/13/87 response: 305 st. oild for 219. The updated sales figure is now 226.

- Q2. Furnish the number and copies of all owner reports or consumer complaints received by Chrysler, or of which Chrysler is otherwise aware, pertaining to the alleged defect on the subject vehicles. Furnish all reports or complaints whether or not Chrysler has verified each report.
- A2. Searches of our applicable records and files found no pertinent owner reports additional to those previously provided.
- Q3. Furnish the number and copies of all other reports, complaints, surveys, investigations, studies, tests, analyses, service and technical bulletins, dealer notices, etc. from all sources either received or authorized by Chrysler, or of which Chrysler is otherwise aware, pertaining to the alleged defect on the subject vehicles. Furnish all information whether or not Chrysler has verified the information. This should include any and all information which has been distributed electrically/electronically.
- A3. Enclosed is a copy of an Advance Service Information letter sent to all Chrysler Zone Service Offices in November, 1987. The letter describes the subject condition for diagnosis purposes and provided a repair procedure for its correction. We had decided to issue this letter several months ago to ensure field awareness and to obtain any resulting feedback. But we waited to issue it until November to coincide with the start of the cold weather period.
- Q4. Identify and describe each accident or subrogation claim (including the names, addresses, and telephone numbers of the owner/occupants involved) of which Chrysler is aware on the subject vehicles which may have occurred due to circumstances, conditions, or problems caused by the alleged defect. Furnish all reports whether or not Chrysler has verified each report.
- Q5. Identify all lawsuits, both pending and closed, by title, location and docket number in which Chrysler is or was a defendant (or codefendant) pertaining to, at least in part, the alleged defect on the subject vehicles. Provide a brief synopsis of each case, including Chrysler's analysis of the incident, the identification of the vehicle (model series, model year, and VIN), the date of the incident which was the basis for the lawsuit, the date the lawsuit was filed, and the vehicle owner's name, address, and telephone number. Identify all parties involved in the lawsuit.
- B.C.

A4 & A5. Our searches found no record of any lawsuits, subrogation claims or any accident reports pertaining to your stated alleged defect.

Q6. Furnish an updated listing of warranty claim data related to the alleged defect on the subject vehicles. Provide the data in a format consistent with Chrysler's warranty claim data submission of May 13, 1987. Each problem claim code must be identified. It appears that in Chrysler's responses of March 2, 1987, and May 13, 1987, some warranty claim codes were not clearly identified (i.e., some of the labor operation numbers specified in Chrysler's May 13, 1987 response may not have been clearly identified in Chrysler's description of warranty claim codes submitted on March 2, 1987).

A6. Enclosed is a listing which updates the warranty claim data provided in our May 13, 1987 response.

All labor operation numbers identified in our May 13, 1987 response were also identified in our March 2, 1987 response, but they don't appear the same because of 8-digit versus 10-digit format. The seventh and eighth digits are not shown in the March 2, 1987 listing. This is simply a format difference between the warranty claim compilation summary data provided in our initial response and the special study warranty data provided subsequently.

Q7. In October of 1986, Chrysler recalled 67,602 1984 through 1987 vehicles equipped with the 5.2L engine for intermittent loss of brake power assist on a second application of the brake pedal in Canada. The defect was a result of the brake booster vacuum hose port in the base of the carburetor being blocked with frozen moisture after an extended period of highway driving at low ambient temperatures. To prevent this defect from occurring, the vacuum source of the brake booster was relocated from the base of the carburetor to the intake manifold.

Indicate whether Chrysler has relocated or will relocate the brake booster vacuum source from the base of the carburetor to the intake manifold on similar U.S. vehicles, either as a design, production, or field modification. If the source was relocated (or will be relocated), describe the modification.

A7. Chrysler did relocate the brake booster vacuum source from the carburetor to the intake manifold on similar U.S. vehicles during 1987 model year production - early in the model year on the subject truck models and late in the model year on cars. The modification is the same as done on Canadian vehicles, as described in the enclosure for item 3.

Q8. Furnish this office a sample of each of the Brake Booster Vacuum Hose Packages and special sockets identified in the Canadian recall report. Indicate whether or not these kits could be used on similar U.S. models.

A8. Enclosed are samples of the Canadian recall parts packages - C3940285 for cars and C3940286 for trucks. These parts packages could be used on similar U.S. vehicles. The Canadian recall instructions describe a special socket tool to be fabricated by servicing dealers. Sockets were not supplied by Chrysler, and samples are not available.

- Q9. Chrysler's March 2, 1987 response stated: "a total of seventeen vacuum hose port freezing incidents which required correction by rerouting had been reported in the Canadian market." Provide copies of each of these reports.
- A9. Copies of the seventeen Canadian market reports are enclosed. None of these reports allege any accident or injury circumstances.
- Q10. Chrysler's March 2, 1987 response stated: "We attempted to determine the scope of the condition in the U.S. market through contact with our Zone Service Office technical representatives in cold weather areas. We found no awareness of any such reports." Chrysler's March 2, 1987 response included reports regarding consumers Broker and Hively. Broker's report stated "During cold weather - 20F or colder, car brakes do not work well if we are road driving 45 mph faster. Broker's state of residence was identified as Alaska. Mr. Hively, a Wisconsin resident, stated "the lack of power brakes is going to kill someone. The cause is filter PN (3)766 429. It filters all the moisture in the line and freezes, causing no vacuum to get to the booster and consequently NO power brakes." Indicate whether or not these reports indicate or appear to indicate "failures" consistent with those reported in the Canadian market.
- A10. The symptoms and circumstances described in Mr. Broker's report and in our subsequent phone contact with him are consistent with those reported in the Canadian market. However, the condition was not confirmed by Chrysler, nor was its cause determined. We arranged to have the booster vacuum source relocated to the intake manifold on Broker's vehicle which had not at the time of our latest contact experienced winter operation since the relocation service was performed.

Mr. Hively specifically attributes his problem to freezing of the filter, indicating that the condition was eliminated when the filter was removed. This is not consistent with the Canadian input that freezing occurred at the carburetor port. Mr. Hively returned the removed filter to us per our phone request. Our inspection detected nothing unique or any problem with that filter. We also arranged for vacuum source relocation service on the Hively vehicle.

- Q11. Indicate whether or not Chrysler has considered conducting a recall similar in nature to Chrysler's 83V-019 recall for fuel tank strap corrosion in which the defect occurred in "winter salt zones."
- A11. Chrysler has not considered conducting a recall of any nature for the subject condition on U.S. vehicles. It is our evaluation that no such action is necessary.
- Q12. Furnish Chrysler's opinion of the alleged defect in the subject vehicles. Please include an assessment of the following:
- the causal or contributory factors which may result in the alleged defect;
 - the failure mode;
 - the risk to motor vehicle safety created by the alleged defect; and
 - any warning of the alleged defect.
- 0010

- A12. Our previous responses on this subject have described in detail the causal and contributory factors and circumstances associated with a condition of intermittent loss of power brake assist experienced on some Canadian vehicles due to frozen moisture blockage of the booster vacuum hose port. Braking capability is maintained, but increased pedal effort (hard brake pedal) is required due to the loss of power assist. We are not aware of any reports (Canada or U.S.) which allege an accident or injury circumstance due to this condition. The potential for the operator to become cognizant of the operating and ambient circumstances (extended highway driving at extremely low temperature) required to experience the condition may serve as warning.

Based on the almost non-existent U.S. field reporting experience; the product differences between the U.S. and Canada; and the generally diverse Canadian weather, as detailed in our prior responses, is our evaluation that the subject condition is not a concern on the subject U.S. market vehicles.

- Q13. Furnish a copy of all documents not specifically requested which Chrysler believes are relevant or were used in formulating its assessment of the alleged defect.
- A13. Chrysler believes that all relevant documents have been provided in this and our prior responses.
- Q14. Furnish any new information of which Chrysler is aware concerning any report, document, or information which may have been previously provided by Chrysler. Also, furnish any additional information of which Chrysler is aware concerning the reports provided by the National Highway Traffic Safety Administration (NHTSA) on this matter.
- A14. Through phone contact with Jack Fisher (report enclosed with our March 2, 1987 response), we determined that he had sold his vehicle. He indicated that the brake complaint, which occurred during heavy snow and very cold weather, had never been corrected. The subsequent owner (Tom Locnikar, Rte 2, Avon, MN) stated he had never experienced any braking problems. Inspection of the vehicle showed that the vacuum hose had already been relocated to the intake manifold prior to sale by the original owner.

We are not aware of any additional information on any of the reports provided by NHTSA.

Sincerely,


W. R. Kittling
/dc
Enclosures (a/s)

11/11

ENCLOSURE FOR ITEM 3

EA88-001; NEF-12rtr

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Telephone

Date
November 16, 1987

11-23

From Name & Department

Cred. Number

ALL ZONE MANAGERS, SERVICE & PARTS SALES

From Name & Department

Cred. Number

R. N. Rossi	National Field Service Manager	Center Line	423-16-31
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Subject: ADVANCE SERVICE INFORMATION #87-21

BRAKE BOOSTER VACUUM RESTRICTION CANADIAN RECALL
5.2L EQUIPPED VEHICLES LISTED BELOW WITH 2BBL CARBURETOR ONLY

1984-1987 Plymouth Gran Fury, Dodge Diplomat, & Chrysler Fifth Avenue

1985-1987 Dodge B1, B2, & B3 Van/Wagon; D1, D2, D3,
D5, D6 & D7 Pickup; & D4 & D8 Ramcharger

NOTE: SINCE THIS LETTER INVOLVES AN EXTREME COLD WEATHER PROBLEM, IT IS
PRIMARILY DIRECTED TO NORTHERN ZONE OFFICES. ALL OTHER ZONES ARE BEING
INCLUDED IN THE DISTRIBUTION FOR INFORMATION ONLY.

The subject vehicles equipped with 5.2L 2BBL engines operating in the Canadian
market were recalled in November 1986, to eliminate a potential for brake
booster vacuum line freeze-up.

These vehicles utilize a port at the base of the carburetor as the vacuum source
for the power brake booster. After extended periods of highway driving in
extreme cold temperatures, moisture accumulation at the carburetor vacuum port
could freeze and temporarily restrict vacuum to the brake booster. This caused
an intermittent loss of brake power assist on a second application of the brake
pedal.

Only the Canadian vehicles were recalled because:

- o U.S. versions of the subject vehicles have emission system differences that
result in higher underhood temperatures, and
- o The severity and duration of cold weather in Canada are factors that cause
the condition.

We are not aware that the brake booster vacuum line freezing condition is a
problem in the U.S. market. However, in the event you do receive a complaint of
this nature, the following information will assist you to properly correct the
condition.

Continued

RECEIVED

NOV 18 1987

J. V. TRACY

Repair Procedure

Should you encounter a vehicle that exhibits the indicated Canadian symptoms, the potential for vacuum line freezing can be eliminated by using the following procedure to relocate the vacuum source for the brake booster from the base of the carburetor to the intake manifold.

Passenger Cars

1. Remove air cleaner wing nut and shift air cleaner forward slightly to provide access to base of carburetor.
2. Loosen clamps at vacuum hose connections to brake booster check valve, and to nipple at base of carburetor. Remove and discard vacuum hose and filter assembly.
3. Disconnect existing hose(s) from manifold vacuum connector (tree).
4. Carefully remove manifold vacuum connector from intake manifold.
5. Install new connector. PN 4026117 and torque to 27 N.m (20 pound feet).
6. Reconnect hose(s) disconnected in Step 3.

Install new preformed vacuum hose, PN 4294294, from the booster check valve to the large nipple on the new intake manifold connector. Use new hose clamps, PN 2448761.

8. Install new rubber cap, PN 358045, over end of the carburetor nipple that was connected to the booster vacuum hose.
9. Reposition air cleaner and install and tighten wing nut.

Trucks

1. For Van/Wagon only, loosen two clamps and three bolts and remove engine cover.
2. Remove air cleaner wing nut and shift air cleaner forward slightly to provide access to base of carburetor.
3. Loosen clamps at brake booster vacuum hose connections to in-line filter and to nipple at base of carburetor. Remove and discard short hose and filter assembly. (Retain one clamp and leave longer vacuum hose connected to brake booster.)

Continued

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4. Disconnect existing hose(s) from manifold vacuum connector (tree).
5. Carefully remove manifold vacuum connector from intake manifold.
6. Install new connector. PN 4026117. and torque to 27 N.m (20 pound feet).
7. Reconnect hoses disconnected in Step 4.
8. Connect existing longer vacuum hose on brake booster to intake manifold connector using clamp retained in Step 3.

NOTE: ON VAN/WAGON, ROUTE THE HOSE IN THE AREA FORWARD OF THE DISTRIBUTOR AND BEHIND THE CARBURETOR.

9. Install new rubber cap, PN 3580452, over end of carburetor nipple that was connected to the booster vacuum hose.
10. Reposition air cleaner and install and tighten wing nut.
11. For Van/Wagon only, reinstall engine cover, close two clamps, and tighten three bolts to 3 N.m (2 1/2 pound inches).

Labor Operation No.	05-60-10-90	'M' Body & Pickup Trucks	0.3 Hrs.
		'B' Van/Wagons	0.4 Hrs.

Failure Code: XX Service Adjustments

Please report any occurrences of this condition to Service Engineering, Attention: A. J. Ramming, via FAX T/L 897-1384. Be sure to include VIN, mileage, repairing dealer, and WRO number.



R. N. Rossi

/mp

cc	H. J. Duggan	D. J. Krans	G. L. Rutherford
	K. N. Gilboe	D. Lopez	G. H. Schnurr
	G. J. Giocondi	J. C. Lowry	L. S. Stiles
	R. J. Grix	E. F. Mahon	J. V. Tracy
	R. I. Harting	T. L. Martin	Regional Managers, S&PS
	F. R. Henderson	J. W. McCormick	Service Engineering Staff
	C. R. Klapec	C. G. Palus	Technical Advisors

0015

ENCLOSURES FOR ITEM 6

EA88-001; NEF-12rtr

0016

DATE COLUMN INTERPRETATION

Dates shown on the attached pages are expressed as follows:

- For vehicle build, sold or repaired dates -- by Julian calendar date, e.g. January 20, 1987 is shown as 7020, the first character designating the year and the last three the day of the year.
- For the list date of repair (LST) by year, month, and payment cycle (for accounting purposes; each month has two payment cycles). For example, payments made in the second cycle of March 1987 would appear in the LST column as 732.

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PAGE 1 12/01/87 89.70

VEHICLE ID	REPAIR ZI	MICRO DLR	MO	BID	SUD	RPR	LST	CIS	ILS	R	HS	X	RP	CT	SOLO CLAIM	LABOR OPERATION	LABOR EXPENSE	TOTAL EXPENSE	CT	
IC30F66PFX66989	32	66689	ME5620	5176527	7760	7A3	L	124	1	1	24	M			65607	33300	0560010363	153.65	1	
IC30F66PFX669912	72	59709	DM93766	50925112	7071	7A2	3	152	0	23	M	0			09	14574	28971	162.55	3	
IC30F66PFX669912	53	43299	DM80562	43075119	7071	7A2	3	100	3	23	M	0			09	42	08383	166.15	3	
IC30F66PFX680012	61	67038	E172313	51015197	7106	782	L	293	1	22	M				67111	10200	0560010363	146.43	1	
IC30F66PFX680012	42	43302	F089701	50305243	7150	7A2	L	230	1	21	M				66319	02316	0560010363	86.15	1	
IC30F66PFX680012	42	63747	F215689	43134321	7152	7A2	L	212	1	31	M				64077	48368	0560010363	166.29	1	
IC30F66PFX680244	61	62694	HE15542	50072643	7152	772	L	415	9	26	M	0			59	67694	60966	146.16	1	
IC30F66PFX682735	61	64989	1123271	51205306	7100	782	3	333	0	21	M	0			09	60989	31867	168.75	1	
IC30F66PFX682912	62	67168	LJ22887	42735642	7204	782	L	268	3	22	M				67070	21912	0560010363	187.90	1	
IC30F66PFX6828012	61	67038	E172313	51015197	7106	792	L	293	1	22	M				67111	10200	0560010363	336.63	2	
END REPORT	10	DETAIL	RC09												10	DETAIL LINES PRINTED		22	LINES OF PRINT	1-
END REPORT		DETAIL	RC09													DETAIL LINES PRINTED				3-
																				7

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1986 CAR

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VEHICLE ID	REPAIR	MICRO	DATES-	CLS	HLS	A	R	M	S	F	T	SOLD	CLAIM	LADOR	LADOR	PAGE	LABOR	TOTAL	EXPENSE	
	ZH	DIR	NO	ST	NO	EST	NO	EST	NO	EST	NO	CT	DEALER	NO	OPRATI(TH)		EXPENSE	EXPENSE	CT	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	132	12 M				56831	27165	0560010363		7-19	79.75		1	
IC38F64PDC0547645	41	60848	JZ25493	60446427014	7A1	L	125	12 M				82005	24027	0560010363		10-12	96.36		1	
																17-31	176.11		2	
IC38F64PDC080744	31	36180	KY02026	610561017264	7B1	L	115	15 M				36100	30949	0560010363		12-26	107.03		1	
IC38F64PDC0549280	35	67404	KZ26542	609061252120	7B1	L	115	12 M				09	67404	01256	0560050111		47.65		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	132	12 M				56831	27165	0560010363		100-00	100.00		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	132	12 M				56831	27165	0560010363		11-20	87.54		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	132	12 M				56831	27165	0560010363		123-46	343.52		3	
IP38F64PDC0532146	32	64382	CZ26420	631360927045	7A1	L	010	12 M				64382	12098	0560100011		7-60	7.60		1	
IC38F64PDC0537492	31	64355	DE70249	602566079707	7A1	L	093	2 1 M				67231	31484	0560010363		10-00	181.53		1	
																25-60	159.13		2	
IP38F64PDC0549280	35	67404	KZ26542	609061252120	7B1	L	016	15 M				72	23531	15070	0560100108		6.71	11.76		1
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		20-38	183.93		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		4-80	54.19		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		31-89	249.80		3	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		11-99	121.53		1	
																17-99	181.53		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		6-00	6.00		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		17-39	183.53		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		25-39	357.46		2	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		9-30	83.94		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		14-60	177.94		1	
																23-70	261.68		2	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		19-33	184.61		1	
																19-33	184.61		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		19-38	101.94		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		6-72	83.25		1	
IC38F64PDC0549382	44	54821	JX13581	600761017005	7A1	L	016	12 M				64456	17137	0560010363		58-10	163.50		2	
																27-77	277.36		10	

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1985 TRUCK

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VEHICLE ID	REPAIR ZN DIR	MICRO MO	---DATES--- BID SIO PFR	LST	CLS	HLS	A	R	HS	X	RP	CT	DEALER	NO.	LABOR OPERATION	PAGE	1	12/01/87	09.66	TOTAL EXPENSE	CT
204402177K368974	41	42524	6455742	513651702035	741	3	170	0	21	M	0	09	42524	44592	0560010307	16.00				109.02	3
204402177K368974	32	43360	0661022	426645996344	741	3	221	0	27	M	0	09	65152	01105	0567103107	16.00				171.03	3
1072021859715927	52	45769	EUT0272	519761787124	752	2	070	1	1	1	1	11	M	05769	05160	0560010363	16.96			226.43	1
107701A13F3502343	35	42479	GE04634	433450917140	762	3	560	3	27	M	0	09	42479	11972	0560050111	6.80				54.63	1
END REPORT	4	DETAIL	BC05	4	DETAIL	LINES	PRINTED	12	LINES	OF	PRINT	17.76			643	11					3

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1987 TRUCK

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PAGE 1 12/01/87 09.86

VEHICLE ID	REPAIR	MICRO	-DATES-	W F	T	SOLD	CLAIM	LABOR	LABOR	LABOR	TOTAL	CT									
	ZN	DIR	NO	BLD	SID	HP	LS	CLS	MIS	A	R	HS	X	RP	CT	DIALER	NO	OPERATION	EXPENSE	EXPENSE	
18700EAT1M5415678	49	35956	J0524E	78237823246	7A1	2	00E	1	00	M	12083	41551	056001023	17.47	162.76	1			17.47	162.76	1
3840M12T3M0716641	31	42455	J0827E	71867272676	7A1	2	010	6	00	B	59	07004	09000	15.99	146.44	1			15.99	146.44	1
3840M12T3M0716725	66	07004	F0223E	71867272676	7A1	1	00E				07004	09000	056001023	51.45	317.73	3			51.45	317.73	3
3840M12T3M0719787	35	42566	G0971E	78477682712	7A2	2	011	1	01	C	47063	11621	056001023	21.30	152.04	1			21.30	152.04	1
18701A12M5417649	41	44451	K2014E	78447781253	7A2	2	010	3	00	M	5871	62307	056001027	21.99	191.00	1			21.99	191.00	1
18701A12M5417735	42	43163	L1119E	78447781253	7A2	2	010	3	00	M	5871	62307	056001027	21.99	191.00	1			21.99	191.00	1
18701A12M5417735	42	43163	L1119E	78447781253	7A2	2	010	3	00	M	5871	62307	056001027	21.99	191.00	1			21.99	191.00	1
18702M12T3M0720882	32	43162	K1313E	78497781254	7A2	2	02E	1	00	M	41262	05095	056010065	40.00	16.00	1			40.00	16.00	1
18702M12T3M0720882	32	43162	K1313E	78497781254	7A2	2	02E	1	00	M	41262	05095	056010065	40.00	16.00	1			40.00	16.00	1
18702M12T3M0720882	32	43162	K1313E	78497781254	7A2	2	02E	1	00	M	41262	05095	056010065	40.00	16.00	1			40.00	16.00	1
3840G12T3M0727749	43	43161	K0164E	71167252746	7A2	2	00F	2	01	M	61683	35315	056001027	55.42	159.81	1			55.42	159.81	1
3840G12T3M0727749	43	43161	K0164E	71167252746	7A2	2	00F	2	01	M	61683	35315	056001027	55.42	159.81	1			55.42	159.81	1
18700M12M53561376	55	53953	K0134E	71167252750	7A2	1	00D	1	00	M	53953	05753	056010163	130.72	574.27	5			130.72	574.27	5
3840M12T3M0726595	44	46978	K1159E	71127174761	701	2	073				42310	61163	05F010163	15.99	146.44	1			15.99	146.44	1
3840M12T3M0726595	44	46978	K1159E	71127174761	701	2	073				42310	61163	05F010163	15.99	146.44	1			15.99	146.44	1
3840M12T3M0726595	44	46978	K1159E	71127174761	701	2	073				42310	61163	05F010163	15.99	146.44	1			15.99	146.44	1
3870M12T3M0737735	42	43163	L1119E	78997111726	701	2	05D	1	00	M	41116	02315	056010161	16.40	146.55	1			16.40	146.55	1
3870M12T3M0737735	42	43163	L1119E	78997111726	701	2	05D	1	00	M	41116	02315	056010161	16.40	146.55	1			16.40	146.55	1
3870M12T3M0737735	42	43163	L1119E	78997111726	701	2	05D	1	00	M	41116	02315	056010161	16.40	146.55	1			16.40	146.55	1
1846M11T3M0Z40864	31	42192	C1564E	67564316207E	7A1	2	01A	1	01	M	41102	01821	0560010163	30.51	201.53	1			30.51	201.53	1
1846M11T3M0Z40864	31	42192	C1564E	67564316207E	7A1	2	01A	1	01	M	41102	01821	0560010163	30.51	201.53	1			30.51	201.53	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00	146.45	1
1870D12T3M0734451	31	42193	D1541E	67564316207E	7A2	2	01E	1	00	M	41039	25741	056001233	19.00	146.45	1			19.00		

VEHICLE ID	REPAIR MICRO	-DATES-	W F T	SOLD CLAIM	LABOR	TOTAL	
	ZH DLR	PH	BLD SD RFR	LS1 CLS	HL5 A R	HS X RP	CT
				CT	DETAIL	NO	
187701V4TMS100951	65 07300	EV503315	421071007313	752	Z 006	1 01 M	07300 05213 0560010307
							106.22 636.36 5
187040211UMK213400	54 42868	FC05859	421346477132	761	Z 027	09 M	42668 42654 0560050165
							9.59 14.62 1
							9.59 14.62 1
187901V4TMS103474	42 59244	TU49499	421443434133	742	Z 051	05 M	59244 47630 0560010307
							21.59 182.05 1
187040211UMK17197	35 42564	CO07115	704770827112	762	Z 031	1 01 M B	59 49963 13621 0560010363
							40.56 301.49 2
187040211UMK10211	51 43018	G018719	711573527353	721	Z 097	1 01 M B	41078 05268 0560010363
							12.50 103.51 1
187040211UMK10211	52 43451	G107256	711713171762	721	Z 026	1 02 M B	41078 05268 0560010363
							12.79 104.26 1
187040211UMK455071	31 42335	C506437	634970821748	771	Z 044	1 05 M	42335 11648 0560100311
							9.90 40.65 1
							9.90 40.65 1
							77.17 401.65 4
187901V4TMS451715	41 47101	C1E4400	704071612746	772	Z 082	01 M	47101 07439 0560050045
							14.09 14.40 1
187040211UMK124519	45 43378	G214164	702727727174	772	Z 082	01 M	43378 03581 0560010307
							47.99 190.44 1
187040211UMK1446139	45 59156	HA13601	704172870171	772	Z 031	02 M	39156 42241 0560050011
							3.50 3.63 1
187901V4TMS427775	74 44916	HA21825	70357037102	772	Z 022	05 M	32603 32742 0560010363
							20.99 151.44 1
187901V4TMS03959	84 57824	PE14344	7140716157107	772	Z 059	02 M	53169 44099 0560010307
							17.59 187.95 1
187040211UMK4935970	44 57896	HO12668	712571617177	772	Z 093	1 01 M	57896 03326 0560010363
							172.99 986.70 7
18790211UMK104450	31 42154	MO05542	712572047197	781	Z 000	00 M	51395 31256 0562010363
							15.99 187.01 1
187040211UMK289409	43 57114	MO15399	709171527106	781	Z 009	03 M	59214 21591 0560010363
							13.76 184.51 1
187701V4TMS21023	81 53759	PH10627	716272151764	781	Z 000	00 M	63259 44643 0560010363
							76.87 576.99 3
187901V4TMS401819	32 43213	T113134	716816267108	782	Z 105	1 10 M	43213 04471 0560100363
							10.29 198.29 1
187901V4TMS21023	71 51374	J101822	716272151764	782	Z 009	01 M	51374 18971 0560010063
							13.00 11.78 1
187901V4TMS406119	47 41645	J105820	716171547282	782	Z 000	02 M	43065 05361 0560010363
							14.00 154.46 1
							55.49 374.36 4
187901V4TMS16445	44 44154	T018477	71271037222	791	Z 003	02 M	44154 14479 0560010363
							10.58 169.01 1
187901V4TMS16445	42 44184	T005444	702473172166	791	Z 003	00 M	44166 04212 0560100065
							6.60 7.09 1
187901V4TMS158974	33 44490	T007664	449663167210	791	Z 051	1 10 M	44490 10474 0560010363
							146.43 146.43 1
187901V4TMS158974	31 57945	TM16110	712757357210	791	Z 001	0 00 M	59195 37740 0560010363
							19.75 140.74 1
18790211UMK101846	72 43231	T009305	425465447242	791	Z 007	1 00 M B	59 43231 05556 0560010363
							19.75 140.74 1
18790211UMK3701119	22 32741	TM1E019	431770927210	791	Z 075	1 05 M	52741 31046 0560050165
							136.68 740.27 6
187901V4TMS140832	43 45974	JO15123	705472072166	792	Z 027	01 M	43036 26246 0560050165
							7.40 11.00 1

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VEHICLE ID	REPAIR ZN DLR	MICRO HO	-DATES- BLD SLD RPR LST	CLS	PLS	A	R	MS	X	RP	CT	DEALER	NO	CLAIM	LORD	OPERATION	LORDR EXPENSE	TOTAL EXPENSE	CT
08A00231MKK68273	32	67505	J021355	706376517817	702	1	000	00	M					67505	17327	0560010363	26.14	197.13	1
26A002316MK602211	52	66056	J022319	622077156468	702	2	001	00	M					43597	81726	0560010363	14.73	165.76	1
107004170MS66744	44	43597	J113444	714474527239	702	1	000	00	M					43597	81726	0560010363	5.00	63.96	1
20A001374MK673008	52	57598	J117359	704571327540	702	2	050	1	04	M	0	59	57598	58075	0560010363	1.50	62.96	1	
107004976MS661008	52	43594	J010652	706673132745	702	3	321	0	1	05	M	M	49	43594	02015	0560010363	1.50	152.84	1
20A00231MK610544	42	68231	J0119301	6224648077	10	782	2	070	1	11	M			66231	16309	0560010363	1.50	268.75	1
107004976MS39297	31	57076	J017546	6348716497	702	2	035	0	03	M				57076	53603	0560100165	132.65	1047.17	0
																	1290.68	6551.59	69

END REPORT

71 DETAIL RECS

71 DETAIL LINES PRINTED

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01/28

ENCLOSURES FOR ITEM 9

EA88-001; NEF-12rtr

01/23

CHRYSLER
CANADA LTD./LTÉE

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE

CAR AND TRUCK
VOITURE ET CAMION

NAME (Last name)
NOM (Nom de famille)

R. J. Cox

REGION
REGION

Alta

DEALER NAME
NOM DU CONCESSIONNAIRE

SOUTHWEST PLY. CHRYS.

PROV.
PROV.

Alta

CHASSIS MAKE
MARQUE DU CHASSIS

AMCO CANADA PETROLEUM

ADR

SITE 30-6815

PROV. ALTA

VIN

1 P 3 B R 6 P 3 F X 5 6 1 6 0 3

031516

NLV

44155 KM

031516

COMMENTS (Remarks)
REMARQUES (Remarques)

ORIGINAL DELIVERY DATE
DATE DE LA LIVRAISON INITIALE

MCH (Month) Day/Year of Build
MCH (mois/jour/année de la fabrication)

MARCH 27/84 - 8807

CONDITIONS (Conditions)
CONDITIONS (Conditions)

HARD BRAKE PEDAL - ONLY AT TIMES

ACTION TAKEN
ACTION PRISE

ADJUSTED NOT AIR DOOR SENSOR CARR
THROUGH UP & CONDENSATION BEING TRANSFERRED
THROUGH BASE OF CARR & INTO BOOSTER VACUUM
HOSE. VACUUM HOSE WOULD BECOME PLUGGED WITH
CAUSING NO ASSIST

R. E. DURAND 83-03-20 (69)



FOR FINANCIAL INSTITUTIONS ONLY
LE BUREAU DU BUREAU DE VOTRE ÉVALUATION

DATE

26 7/85

COPIES 1,2,3 - BUREAU REGIONAL

COPIES 1,2,3 - REGIONAL OFFICE



Amoco Canada
Petroleum Company Ltd.
Suite 300 681 8 Street N.E.
Calgary Alberta T2E 7W7

John G. McLeod
Dist. Sales Mgr.

February 6, 1985

Art Wegner
Regional Service Manager
Chrysler Canada
Box 670
Red Deer, AB
T4N 5G9

Automotive Fleet Units Plymouth Caravelle Brake Problems;
File: KA-593

Further to a telephone conversation between Wake/Pasenko on February 5, 1985 this letter will confirm that we have been experiencing problems with the braking system on four of our 1984 Plymouth Caravelle Fleet units. The problem has been diagnosed by a mechanic who works for Sundre Sales and Service Sundre, Alberta as an ice plug in the vacuum hose from the carburetor to the booster unit which has led to four vehicles encountering a "hard" brake pedal and corresponding lack of braking capability. By copy of this letter to the individuals concerned, we hereby advise them of the potential safety hazard and that we will communicate with them shortly after you advise us of the solution to the problem.

Any further inquiries regarding this situation may be directed to Karl Adam or Greg Pasenko at 295-4100.

GPP/ddf

cc: E. M. Baraniuk Calgary Office
Ron Kenney Calgary Office
All District Foremen - Crossfield
Jack Savage - Northern District
Len Cyca - Edmonton District
Wayne Heth - Pembina District

0134



Amoco Canada
Petroleum Company Ltd.

February 8, 1985

E. M. Baranuk
Calgary Office

Automotive Fleet Units Plymouth Caravelle - Brake Problems;
File: KA-593

Further to our letter dated February 6, 1985 to Chrysler Canada regarding the above noted subject, it has since been determined that after sending one of our automotive units to Southside Plymouth Chrysler Ltd. - Red Deer, Alberta we have discovered the cause of the brake problems in our Plymouth Caravelles.

Inside the snorkle on the air intake side of the air cleaner is a hot air door which opens or closes according to temperature fluctuations and is controlled by a sensor in the air cleaner. The hot air door should automatically close during periods of cold weather. If the door should remain open, cold air passes through the carburetor, freezes, condensation forms and turns to ice. The cold air is sucked through the base of the carburetor and into the hose that leads to the brake booster unit which is vacuum operated and provides the power assist. The moisture freezes inside the hose plugging it off resulting in a loss of the power brake assist. Although the power assist does not function, manual braking power is still available demonstrated by encountering a "hard" brake pedal and corresponding lack of braking capability.

The problem has been rectified with a simple adjustment to the hot air sensor inside the air cleaner. The door was fluctuating back and forth as it would normally do during warm summer weather instead of remaining closed.

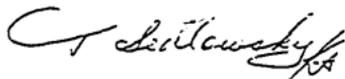
A letter is presently being prepared by South Side Plymouth Chrysler Ltd. and will be sent to their Head Office with a copy to this office outlining the problem. By copy of this letter to all parties concerned,

Northwest tried dragging booster on these units with

no success

01/82

the Crossfield District strongly recommends that all Plymouth Caravelle automotive units be taken in to the nearest dealer for immediate service in order to rectify this perspective safety hazard.



T Sedlowsky
Acting District Superintendent

GPP/ddf

cc: Art Wegner - Chrysler Canada
Box 670
Red Deer, AB
Ron Kenney - Calgary Office
All District Foreman - Crossfield
Jack Savage - Northern District
Len Cyca - Edmonton District
Wayne Heth - Pembina District

G1183

CHRYSLER
CANADA LTD./LITE

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

FOR WHISKEY OFFICE USE ONLY
A L'USAGE DU BUREAU DE WHISKEY ET BIEN-ETRE

NAME (Nom) W. G. JACKSON MOON (Lune) 25 DATE (Date) FEB 6 85

DEALER NAME (Nom du concessionnaire) MANISFALL CHEVROLET LTD. CITY (Ville) MANISFALL PROV. (Prov.) NS

CAR/MARK (Car/Modèle) MARIL DALL CAMARO LTD ADDRESS (Adresse) DOE RD NIMBERG NSIA

VIN:

1	B	3	B	6	2	6	P	5	F	X	5	4	9	3	7	5
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

 MDH (Month/Day/Year of Birth) 10 2 9 13

CHRYSLER (Chrysler) 10054 ORIGINAL DELIVERY DATE (Date de la livraison initiale) Nov. 19/84

CONDITIONS (Conditions) : Customer complaint - no brake when stopped - also unable to
push pedal down - had to use park brake - got car stopped - once only.

[Handwritten signature]
 ILLEGIBLE

SECTION TALKER (Section Talker) 1324
 SECTION TIME (Section Time) 1324
 I took the car home and tried to get it to duplicate this action
 under several conditions on the cold weather and was unable to get
 it to repeat this action. We replaced the master in the antenna felt
 necessary about using it again.

PHONE CONTACT RECORD - SERVICE ENGINEERING DEPARTMENT

SERVICE GROUP #: 05DATE 85/02/01 V.I.N. Fx 549375 MOH NO. 10 29-12

VEH. DEL. DATE _____ MILES/KMS _____

NAME D. Weyner REGION 25DEALERS NAME Campbell's PHONE NO. _____OWNERS NAME White Oil PHONE NO. _____Brake, Rusty Fringe - Cold Weather

DESCRIPTION OF PROBLEM/ACTION TAKEN

Reports from customer indicate that
after about 20 km driving in very cold
weather (temperatures 25°C and below), the
power brake booster provides no assist -
very hard brake pedal. If the vehicle
is stopped for a few minutes, apparently,
the ambient temperature increases enough
to restore normal brake power assist.
Information from customer to Regional Service
Center further indicates that few other
vehicles in fleet have reported similar
problem.

On above listed vehicle, booster will
be replaced and returned to Service Engineering
Dept. in Windsor.

Note: Similar problem also reported by W. Wright
on 8150 1985 model year van (booster to be returned

VIN-237673706K205498

MOH-05-07-15

PROBLEM REGISTERED WITH: J. J. [Signature]COPIES TO: G. F. [Signature]E. E. [Signature]

01/35



SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DÉ SERVICE
 CAR AND TRUCK
 VOITURE ET CAMION

GROUP NO.

FILE NUMBER
NUMÉRO DU DOSSIER

FOR INFORMATION OF USE ONLY
À L'USAGE DU DÉPÔTÉ DE PRODUITS DÉ SERVICE

Model (Make and Model) / Modèle (Marque et Modèle): Non Starting / Chrysler

City / Ville: Montréal

State / Province: Quebec

Year / Année: 1970

Color / Couleur: Black

VIN: 2B74B2377AK315142

MDH (Month/Day/Hour of Build) / M.H. (Mois/Jour/Heure de fabrication): 05/31/6

Serial Number / Numéro de Série: 789

Original Delivery Date / Date de la Livraison Originale: 11-14-85

D. No power brake assist working
on first application. Also after increasing
pedal force no power assist.

D. When driving on light snow there is
following behind another vehicle the spin down
is needed with driver's hands off to
prevention of push up air needed at sad for.

D. Brake line to wheel broke through

D. Brake tube from dust at back of

CHRYSLER
CANADA LTD./LTDÉ

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

GROUP GROUPE	DATE
PLANT NUMBER NUMÉRO DE DOSSIER	
FOR WORKSHOP OFFICE USE ONLY À L'USAGE DES BUREAUX DE TRAVAIL EN MÉCANIQUE	

NAME (PRINTED) / NOM (IMPRIMER) Don Harding DATE / DATE Dec 5 85

DEALER NAME / NOM DU CONCESSIONNAIRE Hydramatic College CITY / VILLE Regina

OWNER NAME / NOM DU PROPRIÉTAIRE Jack Tool STATE / PROVINCE Saskatchewan

VIN / N.V. 2B7HB23T0FK305472 MODEL (Month/Day/Year of Build) / MODÈLE (Mois/Jour/Année de la fabrication)

0	5	3	1	1	6
---	---	---	---	---	---

START HERE - 13 DIGIT VIN COMMENCEZ ICI LE VIN. / COMMENCEZ ICI LE VIN À 13 CHIFFRES. 2069 SERIAL NUMBER / NUMÉRO DE SÉRIE 14485 CITY / VILLE Regina

COMMENTS / REMARQUES: E. No Brake master when cold on first application. Also after the 4:00 on 5th application. (The system froze up)

E. Master cylinder air cleaner from air shared system (airway in right adjacent system).

UNAVAILABLE

ACTION TAKEN / ACTION PRISE: D. Re-route the source to intake manifold

D. Re-route air source from road. Check at road for air source problem.

760

CHRYSLER
CANADA LTD./LTDÉ

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

GROUP GROUPE	FILE NUMBER NUMÉRO DU DOSSIER
APPROVED BY APPROUVÉ PAR	
DATE OF ACT DATE DE L'ACTE	
APPROVED BY APPROUVÉ PAR	

NAME (Customer or your company) *Don Stuebing* MODEL *Primo* DATE *July 5/85*

DEALER NAME (FROM BU COMMERCE/NOUVEAU) *Roberto Espinoza* CITY *Repina* PROV. *Sask*

OWNER NAME (FROM BU PROPRIÉTAIRE) *Don Stuebing* ADDRESS *Repina, Sask*

VIN:

2	0	7	N	8	2	3	T	7	F	X	3	2	1	0	2	2
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

 MSN (Month/Day/Year of Build)

0	6	0	5	0	7
---	---	---	---	---	---

 M/JN (Month/Jour/Année de la fabrication)

CRM (FOR BU ADVIS) 2818 ORIGINAL DELIVERY DATE *Aug 15/85*
RELÈVE DE L'OPÉRATION DATE DE LA LIVRAISON INITIALE

CONDITIONS (See the back of this report) *also no paint after 4th or 5th. Brake application.*

COMMENTS (See the back of this report) *Dr. Air clean element gets soaked with water causing flooding aft. when driving in light snow storm.*

ILLEGIBLE

Gd

WORK ORDER (See back of this report) *Dr. front vac hose to be replaced*

REPAIRS (See back of this report) *Replaced + painted vac. Mypha hose + brake boots.*

REMARKS (See back of this report) *Remove pipe from air cleaner & install a new article air.*

CHRYSLER
CANADA LTD./LTDÉ

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE

CAR AND TRUCK
VOITURE ET CAMION

NAME (Customer use)
NOM (Client utiliser)

Pierre Stuebing

DEALER NAME
NOM DU CONCESSIONNAIRE

Stuebing Cadillac

CHASSIS MAKE
MOTOCYCLE

Stuebing

V.I.N.
N.V.

2071182373FK315851

START DATE - 11 DIGIT VIN COMMENCEMENT DE LA VENTE
3143

QUANTER INADING
MONTRE DE L'ODOMETRE

ADRESSE

ADDRESS IN FULL
DATE DE LA VOISURE INITIALE

Aug 14/85

MDH (Month/Day/Year of Build)
MJH (Mois/Jour/Année de la Fabrication)

062201

GROUP
GROUPE

FILE NUMBER
NUMÉRO DU DOSSIER

FOR WORKS ORDER USE ONLY
À USAGE EXCLUSIF DES ORDRES DE TRAVAIL

DATE
Aug. 28/85

DATE

Aug 28/85

CITY

Repres

ADRESSE

Repres

CONDITIONS: Service
CONDITIONS: Service

*No. from brake assist on vehicle
an cold weather, ~~weather~~ on first brake
application, and up to 2000 rpm. Advise on
city on cold weather only. 1000 500 only
you would have had that time. Brake assist.*

ILLEGIBLE

ACTION MADE

*Present to the service for brake assist direct
to intake pipe. And also more direct. Will be
clean to brake master.*

0030

COMES 123 - BUREAU REGIONAL
COMES 4 - DOSSIER

COMES 123 - REGIONAL OFFICE
COMES 4 - FICHE

CHRYSLER
CANADA LTD/ATIE

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE

CAR AND TRUCK
VOITURE ET CAMION

NAME (printed) /
NOM (imprimé) sur

Ron Stueberg

MODEL /
NUMÉRO

Praxis

DATE

Dec 5/75

DEALER NAME /
NOM DU CONCESSIONNAIRE

Belmonte / Mygale

CITY /
VILLE

Piquitas / Jack

OWNER NAME /
NOM DU PROPRIÉTAIRE

Jack Tel.

PROV.

Piquitas / Jack

V.I.N. /
N.V.N. **2B7H82376FK313737**

START TIME - 13:00 / V.T.N. COMMENCEMENT DES TRAV. **2:46**

MDH (month/day/hour of Billing)
M.H.J. (mois/jour/heure de la facturation)

060510

COMPUTER READING
MÉTIERE DE L'ODOMETRE

ORIGINAL SERVICE DATE
DATE DE LA LIVRAISON INITIALE

Aug 26/85

DESCRIPTIONS : Descriptions
particulaires : Détails

*On No concern for the assist on first
application when cold. Also after other 3000
horse application no problem.*

*On this concern getting worked with water from road
being picked up through air intake.*

Gu

ACTION TAKEN
ACTION PRISE

*① Re-write valve cover to suitable standard
& more valve lifter clear to push handle.*

② Spare tube from air snorkel.



SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

GROUP GROUPES	FILE NUMBER NUMÉRO DU DOSSIER
ALYBILLO LE DÉPARTÉMENT DES VEHICULES	

NAME (MONTREZ LE NOM) Jim REDGWELL REG NO 24 7341 DATE Dec 03/85

DEALER NAME (NOM DU CONCESSIONNAIRE) Parkway PC CITY (VILLE) MELBURN PROV. SK SALES ID# 102

OWNER NAME (NOM DU PROPRIÉTAIRE) SASK TEL 253 386 ADDRESS (ADRESSE) MELBURN SK S08 1A0

VIN B7H823T5FK300131 MDH (Month/Day/Year of Builg) 12/13/84
 N.I.V. 4617 km MJH (Month/Jour/Heure de la fabrication) 12/13/84

ODOMETER MILEAGE (MÉTRES LA L'ODOMETRE) 4617 km SPECIAL DELIVERY DATE (DATE DE LIVRAISON SPÉCIALE) Dec 08/85

CONDITIONS - Conditions
COMPLÉTER - Compléter

Loss of Power Under Power in Cold Weather -

REASON FOR ACTION (RAISON DE L'ACTION) more bearings k'de. hiro from cars la manif. s.o.

INITIALS fw

CHRYSLER
CANADA LTD./LTÉE

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

1-800-4-A-CHRYSLER

GROUP GROUPE	FILE NUMBER NUMÉRO DU DOSSIER
DATE OF REPORT DATE DU RAPPORT	
DATE OF DELIVERY DATE DE LIVRAISON	
DATE OF PURCHASE DATE D'ACHAT	
DATE OF RECEIPT DATE DE RÉCEPTION	

NAME OF CUSTOMER
NOM DU PROPRIÉTAIRE

Tim Redgwell

REGION

24/04/11

DATE

DEALER NAME
NOM DU CONCESSIONNAIRE

Parkway Pc

CITY
VILLE

Markham

PROV.

SK

SALE NO.

SAF 100

CUSTOMER NAME
NOM DU PROPRIÉTAIRE

Dore Long

ISSUES
ADRESSE

Markham SK

SALE NO.

SAF 100

V.I.N.
N.I.V.

1 B 7 G 2 1 4 T P F S 6 6 0 0 8 1

MDH (Month/Day/Year of Build)
M.J.H. (Month/Year/Heure de la fabrication)

0 4 1 7 1 6

ODOMETER READING
MÉTRES DE L'ODOMETRE

14932 Km

ORIGINAL DELIVERY DATE
DATE DE LA LIVRAISON INITIALE

April 18/11

CONDITIONS - OTHER
CONDITIONS - Autres

Loss of Brake Assist in Cold Weather

COPY 4 FILE
COPIES 123 - REGIONAL OFFICE

COPYES 123 - BUREAU REGIONAL
COPIE 4 - DOSSIER

ACTION TAKEN
ACTION PRISE

More Brakes 1000 lining from 1906 to 1910.

OK

GL

9/10/11

CHRYSLER
CANADA LTD./LTDÉ.

L 5714EJ 20-01-70

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

MADE ASSEMBLED BY
FABRIQUÉ EN CANADA

Ron Stenberg

MOON
MOON

Prarie

DATE

May 28/85

DEALER NAME
NOM DU CONCESSIONNAIRE

Sabandh Chipler

CITY
VILLE

Regina

OWNER NAME
NOM DU PROPRIÉTAIRE

SASK TAB

ADDRESS
ADRESSE

Highway 100 East

V.I.N.

2B7NBA3T3FK306292

MDH (Month/Day/Hour of Builing)

MUH (Month/Day/Hour of de la fabrication)

051719

CHASSIS INCLUDING
RELATIF DE L'ÉQUIPEMENT

230

ORIGINAL DELIVERY DATE
DATE DE LA LIVRAISON INITIALE

Sept 4/85

CONDITIONS - Description
CONDITIONS - Description

No vac. exist to brake on first few
application when
found upon inspection that vac. hose has yonthe
in it. Do to the installation of the vac. hose
for power brakes applied at time of year most
the P.C.V. hose. The hose of year most
Muffler in the hose is potted at rear of engine
at a downward angle to trap moisture.

ACTIONS TAKEN
ACTION PRISE

- 1) Replaced vac. hose # 403611 in place as vac. hose that is installed in Weyburn
- 2) Replaced vac. hose from front cap fitting hose with another. Replaced front cap fitting
- 3) At front panel near rear. There is a hole in plate where front and rear muffler met. This spot and seal in bracket.

GMW

CHRYSLER
CANADA LTD./LTDÉ

FILE

SERVICE PRODUCT REPORT
RAPPORT SUR LES PRODUITS DE SERVICE
CAR AND TRUCK
VOITURE ET CAMION

GROUP GROUPE	FILE NUMBER NUMÉRO DU DOSSIER
FOR WINSTON OFFICE USE ONLY À L'USAGE DU BUREAU DE WINSTON ÉLÉMENT	

NAME (Customer only) / NOM DU CLIENT (à usage personnel): EASTERN SALES LTD REGION: PRAIRIE DATE: NOV 28 - 85

DEALER NAME / NOM DU CONCESSIONNAIRE: EASTERN SALES LTD CITY: WINNIPEG PROV: MAN

OWNER NAME / NOM DU PROPRIÉTAIRE: Province of Manitoba ADDRESS: 626 Hewley St.

VIN: 2B4H2170FK262588 MDH (Month/Day/Year of build): 02 01 07
 N.I.V.: 24233 MJH (Miles/Year/Hours of fabrication):

COOMETRIA (Métrologie) / N° DE L'ÉCOMÉTRIE: 24233 ORIGINAL DELIVERY DATE / DATE DE LA LIVRAISON INITIALE: 02 22 85

CONDITIONS / QUANTITÉ / QUANTITÉ / QUANTITÉ: Correct loss of Vacuum Boost Assist in Brake Booster

WORKER (O.B.D.): cc. F. S. Shumway - spent of load of brake booster
correct loss of brake vacuum
ensure booster to work later.
J. S. Shumway
05/12/85

ACTION TAKEN / ACTION PRISE: FR

REPLACE BOOSTER MAKE SURE VACUUM LINE NOT CONDENSING AT
CARB (Should hook up at 8 INCHES PART)