



DEPARTMENT OF  
TRANSPORTATION

parts  
return  
program

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U.S. DEPARTMENT OF TRANSPORTATION • NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

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## CASE OF THE MONTH

### Transmission Shift Linkage Failures 1973-1978

#### Ford Motor Co. Passenger Cars

The National Highway Traffic Safety Administration (NHTSA) recently opened a formal defect investigation (Case C8-02) on this subject. The vehicles involved in the case are an estimated two million Ford, Mercury, and Lincoln passenger cars equipped with automatic transmissions, steering column mounted shift levers, and 351 cubic inch or larger engines. The problem occurs when the transmission shift lever is placed in the PARK position. Vibration from a running engine or a slammed door can cause the transmission to jump into REVERSE gear. If the driver has left the vehicle, it could move backward by itself, causing accidents, injuries or property damage.

In a recent Consumer Advisory NHTSA Administrator, Joan Claybrook, said "an automobile moving under power without a driver can be exceptionally hazardous, particularly to pedestrians and to children." She cautioned that no car should be left with its engine running unattended, and warned drivers of the cars under investigation "to turn off the engine and set the parking brake in addition to putting the transmission in the PARK position when leaving the vehicle."

The investigation was initiated after the NHTSA received two reports from the Center for Auto Safety, indicating one injury and one fatality allegedly caused by this problem. Combined data from NHTSA, the Center for Auto Safety, and material provided by the manufacturer indicate 31 owner complaints regarding this problem, all involving accidents. These reports indicate a total of 14 injuries and one fatality allegedly due to vehicles jumping into REVERSE.

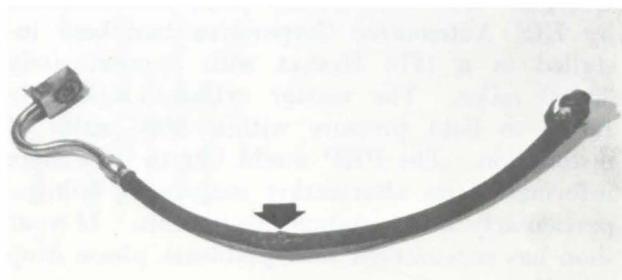
The problem is apparently due to excess play in the linkage between the shifting lever and the transmission, which allows an improper indication on the gear shift indicator. The problem seems to be aggravated by hot engine temperatures, hot weather, or both. The only known pre-failure symptom is

an improper indication on the gear shift indicator. For example, the indicator may point to NEUTRAL when the transmission is in some other position, or the indicator may rest somewhere between two of the positions on the indicator scale.

Our PRP members are requested to be alert for these kind of failures.

## BRAKE HOSE FAILURE

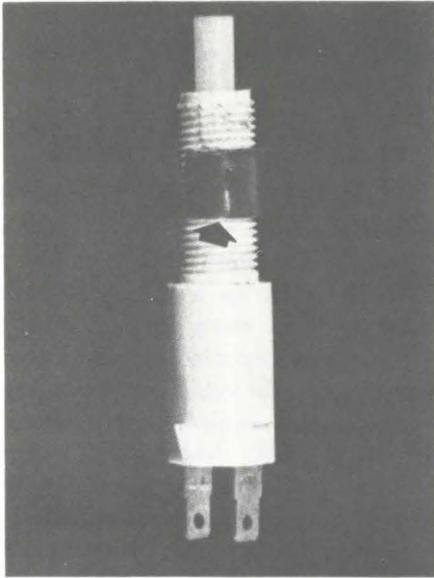
D & Z AUTO SERVICE in Cornwell Heights, Pennsylvania sent in the front brake hose shown in the photograph. The hose was removed from a 1977 Ford F-350 pick-up with 23,462 miles. As indicated, the hose is worn through the cord at midpoint. This was reportedly caused by contact with a front tire on the vehicle. According to the shop, the vehicle was equipped with the original wheels and tires. The leaking hose reportedly allowed the brake pedal to be depressed to the floor, when the owner was backing the vehicle up with a fully loaded horse trailer. The shop believes that the hose may have been installed incorrectly at the factory. Special thanks to D & Z AUTO SERVICE for this information. If your shop finds a similar problem, please let the PRP know.



FRONT BRAKE HOSE  
1977 Ford F-350 Pick-up

## BRAKE LIGHT SWITCH

The photograph shows a brake light switch that was removed from a 1977 Chevrolet Chevelle with 7,032 miles. The switch was returned by ART'S SERVICE in Minneapolis, Minnesota. The metal collar and plastic threads on the switch casing reportedly failed to hold the switch in place under the vehicle's dash, allowing the switch to become misaligned. This in turn caused the vehicle's brake lights to stay on. The switch serves as a stop when the brake pedal is released. Special thanks to ART'S SERVICE for returning the switch. If your shop finds a similar problem, please let the PRP know.



BRAKE LIGHT SWITCH  
1977 Chevelle

## ITEMS OF INTEREST

- A brake master cylinder was returned by BARLOW'S STANDARD STATION of Macon, Georgia. The aftermarket part, manufactured by EIS Automotive Corporation had been installed in a 1975 Hornet with approximately 32,000 miles. The master cylinder reportedly failed to hold pressure within 1,000 miles of installation. The PRP would like to have more information on aftermarket component failures, particularly brake system components. If your shop has encountered such problems, please drop us a line.
- The National Highway Traffic Safety Administration has recently published a revised fact sheet

to advise motorists on brake fluids. In a recent Consumer Advisory Joan Claybrook, NHTSA Administrator, said that "with service stations continuing to convert to no-service, gas-and-go operations, many more motorists are checking the fluid levels in their vehicles themselves and adding fluids when necessary". While this is a relatively simple operation," she added, "the motorist who is not knowledgeable, or is careless, can damage the brake system and jeopardize his or her life by adding the wrong type of fluid, or permitting the system to become contaminated by such things as moisture and grit."

The fact sheet describes the types of brake fluids available and their use, federal labeling and coloring requirements designed to minimize the possibility of adding the wrong fluid to a brake system, the dangers of brake system contamination, and a list of "DO's and DON'T's to be followed in checking and adding brake fluid.

The general public may obtain single copies of this fact sheet, without charge, by writing to the General Services Division/Distribution, National Highway Traffic Safety Administration, 400 Seventh St., SW, Washington, D.C. 20590.

- The PRP is expanding to include new car dealers, fleets (rental car, taxi, police, etc.) and parts suppliers. With the participation of these new members, we hope to receive more information on newer model cars and aftermarket parts. We expect to pass along information from these newer members in our news letter and hope that our current members will benefit from the new information. Shops that know of interested dealers, fleets or parts suppliers may want to call the PRP and relay their name and telephone number. In any case, please take a minute to mention this program to your parts suppliers—tell them to call us collect at (703) 527-4500 (extensions 235/236/237) for more information.

## TELEPHONE CALLS

If you have any problems regarding this program, are in need of additional supplies, e.g., mailbags, tags, etc., have any questions, or would like to pass on comments, please call collect. Our phone number is (703) 527-4500. Ask for the Parts Return Program staff—Bruce Beddow, Guy Whiddon, Ms. Jonni Peizer, or Martin Lowery. They will be happy to assist. We are on Eastern Time and are normally available Monday through Friday from 8:30 a.m. to 5:30 p.m. If you have a contribution or suggestion for the PRP News, please send it to the Parts Return Program, c/o Kappa Systems, Inc., 1501 Wilson Boulevard, Arlington, Virginia 22209.

## OUTSTANDING PARTICIPANTS

Our outstanding participants are those that have sent to the PRP at least one component or item of information during the current month. The number in parentheses before a participant's name identifies the number of consecutive months that participant has sent in components and information. New members that have just become active in the PRP for this year (July 1977-June 1978) are identified with an asterisk before their name. During September 1977, 26 members became new active participants, and six have sent in components and information in consecutive months. We need more active participants. Please make your contribution toward highway traffic safety today.

- REGION 9
- \* KING CO. BRAKE SERVICE  
Seattle, WA
  - (2) L.A.D. AUTO ELECTRIC  
Spokane, WA
  - \* MAYER AUTO SERVICE  
Marysville, WA
- REGION 9A
- \* ISE AUTOMOTIVE SERVICE  
Hollywood, CA
  - \* MAURICE'S AUTOMOTIVE  
Hollywood, CA
  - \* MIDAS MUFFLER SHOP  
Bakersfield, CA

- REGION 8
- \* JOHN'S GARAGE  
Nampa, ID
  - \* MR. BRAKE #1  
Salt Lake City, UT

- REGION 7
- \* BOB CHESTER'S AUTO SERVICE  
Arlington, TX
  - \* C & S BRAKE SERVICE  
Ft. Worth, TX

- REGION 5
- \* ART'S SERVICE  
Minneapolis, MN
  - BELOIT FRAME & AXLE CO.  
Beloit, WI

- REGION 6
- \* TOMAN AUTO REPAIR  
St. Louis, MO

- (3) FOREIGN AUTO SERVICE CENTER  
Minneapolis, MN
- (3) RICHFIELD WHEEL ALIGNMENT  
Minneapolis, MN
- \* STEIGER & GERTZEN GARAGE  
Minneapolis, MN

- REGION 3
- \* AUTOMOTIVE PARTS CENTER  
Greenville, AL
  - \* BARLOW'S SERVICE STATION  
Macon, GA
  - (3) BIG BRAKE SAFETY CENTER  
Gulfport, MS

- REGION 4
- \* SAFETY FIRST ALIGNMENT & BRAKE  
Indianapolis, IN

- REGION 0
- \* DANVERS SHELL SERVICENTER  
Danver, MA
  - \* FAIRVIEW SERVICE STATION  
Lakeside, CT
  - \* GLIDDEN AUTO SERVICE  
Nashua, NH
  - (3) HARRY'S AUTO SERVICE  
Great Barrington, MA

- REGION 1
- \* BRAKE-O-RAMA  
Lodi, NJ
  - \* BROUGHTON MOTOR SALES  
Monongahela, PA
  - \* CENTRAL CITY GARAGE  
Harrisburg, PA
  - \* D & Z ATLANTIC  
Cornwell Heights, PA
  - \* DEUTZVILLE GARAGE  
Trenton, NJ
  - VINS MOTOR SERVICE CORP.  
Brooklyn, NY
  - \* WAPPINGER'S SHOPPER NEWS  
Wappinger Falls, NY

- REGION 2
- (3) AUTO BRAKE CORP.  
Norfolk, VA
  - \* BERA AUTO SERVICE  
Greenville, SC
  - \* J.A. PAYNE ALIGNMENT & TIRES  
West Point, VA



## NATIONAL PARTS RETURN PROGRAM

### Description and Function

- The PRP involves the voluntary submittal of failed automotive components and information by participating members. The program is open to independent repair shops, new car dealers, independent parts suppliers, and fleet operators. Information and/or failed parts are submitted to a representative (Kappa Systems, Inc.) of the National Highway Traffic Safety Administration (NHTSA).
- The purpose of the PRP is to gather information and components to help the NHTSA identify the existence of safety-related defects in the per-

formance, construction, components, or materials of motor vehicles and motor vehicle equipment. Under the authority of the National Traffic and Motor Vehicle Safety Act of 1966, as amended, the NHTSA can require manufacturers to conduct safety defect recall and remedy campaigns when it has been determined that a defect relating to motor vehicle safety exists.

- The information obtained is also valuable in preparing Federal motor vehicle safety standards.
- You can help. The components and information that you send in will give vital information that cannot be obtained in any other way.

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U.S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
WASHINGTON, D.C. 20590

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