parts return program news

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

Vol. 2, No. 6 December 1976

TIMING LIGHT ERRORS

In their latest issue of *Let's Talk Road Service* (1976, Issue 4) The American Automobile Association notes that it may be difficult to set the timing on some Ford models with high energy ignition. Some timing lights may give erratic indications when used on these vehicles.

Capacitive-coupled type lights are affected such as those that connect directly in the spark plug wire. The lights can be falsely triggered causing multiple flashes. However, inductive type lights can be used without difficulty.

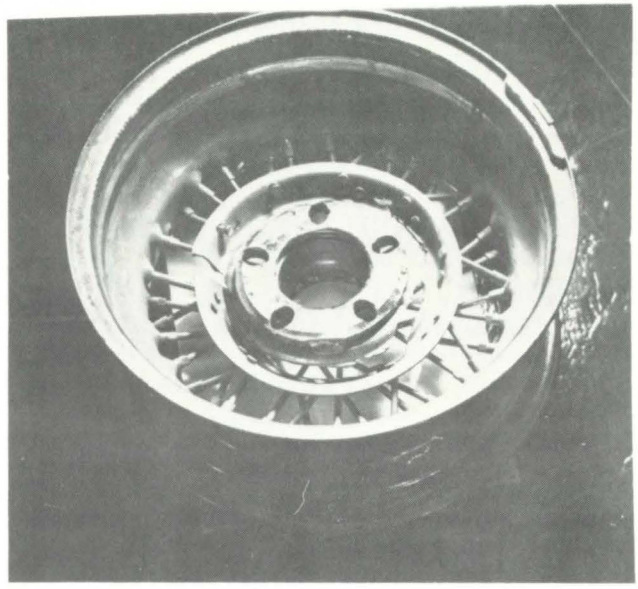
Some capacitive type timing lights have a spring loaded clamp that surrounds the spark plug wire. This type may work satisfactorily if insulation is placed between the clamp and the wire. A piece of vacuum hose split lengthwise will make a good insulator. Install the hose over the plug wire and place the clamp on the hose. This will take care of the problem in most cases. Special thanks to the AAA for allowing us to pass this information on to our PRP members.

TRU-SPOKE WHEELS RECALLED

The March 1976, issue of the PRP News contained an article about a Tru-Spoke wire wheel that had been returned to the PRP by DICK JORDAN'S STANDARD SERVICE STATION in Clayton, Missouri. As indicated in the photograph, the inner disc of the wheel is broken around ⅔ of its circumference. The wheel had been removed from a 1975 Cadillac Coupe De Ville with approximately 5,000 miles on it. At about the same time, the National Highway Traffic Safety Administration (NHTSA) received some other related inputs concerning Tru-Spoke wheels, including information from ABBCO SAFETY CENTERS, Detroit, Michigan.

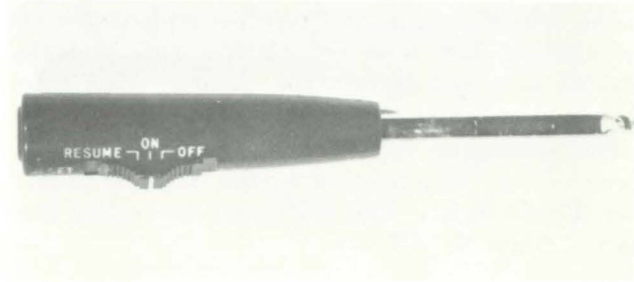
After discussions with the NHTSA's Office of Defects Investigation, the manufacturer, Wheel Specialties Company, initiated a safety recall campaign involving 3,268 of these wheels for a potential defect. The wheels may become structurally unsound when used on a vehicle with a gross weight of 5,000 pounds or more. Wheel specialties is notifying involved owners of this potential defect and will replace the wheels free of charge.

We are pleased that the PRP could help in this matter and would like to convey our special thanks to DICK JORDAN'S STANDARD SERVICE STATION and ABBCO SAFETY CENTERS for their assistance.



TURN SIGNAL LEVER FAILURE

FELD GARAGE, INC. in Kenosha, Wisconsin has returned a turn signal lever that was removed from a 1975 Matador 2 door coupe with a mileage of 11,097. The lever, which includes a speed control device (see photo), broke off at the steering column. The signal cancelling device in the column was still in good condition. Please notify the PRP if you are aware of similar failures.



WANTED

FAILED OR WORN STEERING TIE ROD ENDS

The Part Return Program needs your help in obtaining failed/worn-out tie rod ends (ball stud & socket assembly) from 1971–72 Chevrolet, GMC, Ford, and Dodge pickup trucks and vans.

The tie rod ends are needed for use in an NHTSA test program. Make, model, year, and mileage of the vehicle are very important, as well as the vehicle owner's name and address.

HERE'S ALL YOU DO

- FILL OUT DATA TAG AND ATTACH TO PART.
- PLACE IN CANVAS MAIL BAG, TIE THE CORD AND PUT IN MAIL BOX. POSTAGE IS PAID.

We need your help. Become an active participant in this public safety program today.

THANKS !

FORD RECALLING PINTO, BOBCAT, AND MUSTANG II

Ford Motor Company is recalling 1976 Pinto, Bobcat, and Mustang II vehicles equipped with 2.3 litre engines. There are 372,584 vehicles involved (job no. 1 thru 8/27/76). The vehicles are being recalled for potential fuel leakage at the rubber hose connecting the fuel tube to the carburetor fuel filter. Such leakage is attributed to a combination of factors including fuel tube misalignment, improper hose clamping, and a change to a less flexible, double braided hose for 1976 model year production. The fuel leakage can result in an underhood fire. As of October 22, 1976, 101 such fires had been reported to Ford.

Corrective action will be performed at no charge to the vehicle owners, and involves replacement of the existing fuel hose and clamps with a single braided hose and spring-type clamps. Fuel tube alignment will also be adjusted where necessary.

The recall came subsequent to the initiation of a formal defect investigation by the National Highway Traffic Safety Administration concerning the matter (Case No. C7–01).

PROPOSED STANDARD TO REDUCE MOTOR VEHICLE THEFTS

A proposed highway safety program standard designed to reduce the theft of motor vehicles has been issued by the National Highway Traffic Safety Administration (NHTSA).

Statistics provided by the Federal Bureau of Investigation indicate that almost 1 million vehicles were stolen in 1974 with a loss estimated at $1.5 billion. Studies conducted by the FBI and the Law Enforcement Assistance Administration show that stolen vehicles are involved in accidents at a disproportionate rate. The common practice of stripping stolen vehicles and modifying them for resale has safety consequences in that such reconstructed vehicles may conceal serious safety problems.

Under the NHTSA proposal, the states would have to adopt title laws requiring each vehicle to have a certificate of title before it can be registered for operation in the state. Almost all states have adopted satisfactory title laws, so that this requirement would serve to close the few remaining gaps. Currently, an effort is underway to standardize the format of title certificates. Also, special tamperproof paper, similar to that used for checks, has been developed which should be effective in limiting the counterfeiting of the titling document itself.

The NHTSA also wants to change the current title procedures to make it more difficult to secure clean titles for stolen vehicles and to provide an opportunity to examine the safety of reconstructed vehicles before allowing them to be re-registered for use on the highways. The proposed standard would require the owner of a vehicle sold for salvage to submit the title to the state for cancellation, and would apply to all owners.

The proposal would require that the Vehicle Identification Number (VIN) for each vehicle titled in a state be recorded and that a cancelled title or equivalent document be presented before a reconstructed vehicle could be titled or registered.

Currently, the NHTSA has two motor vehicle safety standards designed to deal with theft problems. These are Standard No. 114, Theft Protection, and Standard No. 115, Vehicle Identification Number. The NHTSA is also considering ways to improve both standards.

TELEPHONE CALLS

If you have any problems regarding this program, are in need of additional mailbags, tags, etc., have any questions which need answers, or would like to pass on comments, please call us collect. Place your call to Bruce Beddow, Jonni Peizer, or Guy Whiddon at (703) 527–4500. We are Eastern Time and are normally available Monday through Friday from 8:30 a.m. to 5:30 p.m. Likewise, if you have a contribution or suggestion for the PRP News, please send it to Kappa Systems, Inc., 1501 Wilson Boulevard, Arlington, Virginia 22209, Attention: Bruce E. Beddow.

SCHOOL BUS OPERATORS WARNED OF BRAKE-LINE CORROSION FAILURES

Operators of older school buses, particularly those manufactured before 1969, were warned recently that the braking systems on their vehicles may be dangerous and may fail due to corrosion and rusting of steel hydraulic brake tubing.

In a public advisory, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) said that the problem is particularly prevalent in areas where salt, chemicals, and abrasives are used for control of roadway ice and snow. Brake failures can result from the corrosive action of these materials which weakens brake tubing.

The NHTSA also warned that other pre-1969 buses, trucks, and passenger vehicles may experience similar problems and advised owners and operators of vehicles which are subject to such corrosives to (1) make a thorough inspection of their steel brake tubing at least once a year, (2) replace corroded tubing, and (3) periodically wash exposed tubing to remove road splash containing corrosives.

The government's warnings are based on random sample surveys of school buses conducted in 18 states. All but one of the survey states are located in snow belt areas where road salts, chemicals, and abrasives are used for snow control. These materials, over a period of time, produced rusting and corrosion in the low-carbon steel hydraulic brake tubing, even though the tubing had a protective coating of lead/tin alloy (terne).

John W. Snow, NHTSA Administrator, said the survey showed that "the corrosion is not limited to any single make or model school bus; but may be present in any vehicle exposed over a period of four or more years to road splash containing heavy concentrations of salt, dirt, or chemicals used for snow and ice control on roadways."

Snow also noted that the problem of corrosive attack on steel hydraulic brake tubing is not unique to the United States, having been found on almost 70 percent of trucks examined during a nationwide inspection program in Sweden in 1969.

Among the observations resulting from both surveys, are:

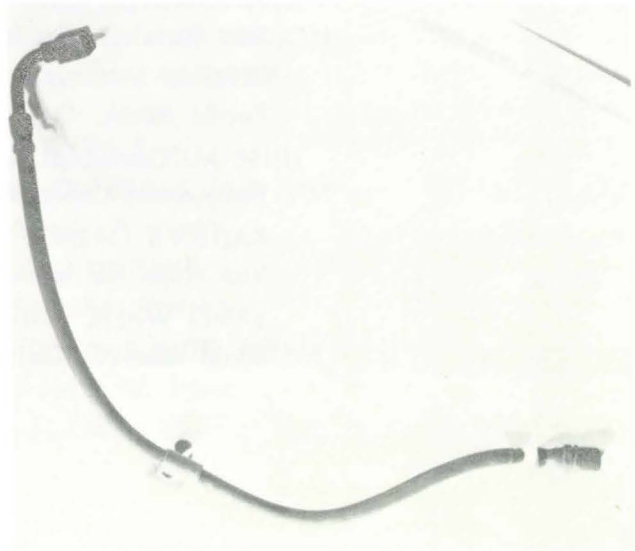
- Low carbon steel hydraulic brake tubing used on passenger cars, trucks, and school buses is manufactured with a protective coating of lead/tin alloy (terne). In 1969, the automotive industry and its brake tubing suppliers changed their specifications to provide for a thicker external terne coating.
- Despite the protective coating, vehicles operated in an environment which includes ice control salts, chemicals, or abrasives are subject to external corrosion of steel hydraulic tubing.
- Vehicle operation over extended periods in such an environment may eventually result in the weakening and failure of brake tubing unless preventive measures are taken.
- Contaminants in hydraulic brake fluid contribute to internal corrosion of brake tubing, but with less significant effect than ice control salts, chemicals, and abrasives.
- With respect to corrosion, vehicle age is a more significant factor than mileage.
- Tubing failure can result in a catastrophic loss of braking capability in vehicles equipped with single hydraulic brake systems.

In addition to issuing the public advisory, NHTSA notified appropriate authorities in all of the states of its findings, and provided suggestions and recommendations toward control of the problem.

Complete details of the NHTSA survey are contained in a report which is on public file and may be examined in the NHTSA Technical Reference Division, Room 5108, 400 Seventh St., S.W., Washington, D.C. 20590.

CRACKED BRAKE HOSE

Mr. T. C. Duff at BELOIT FRAME AND AXLE in Beloit, Wisconsin has sent the PRP a front brake hose which is shown here. The hose was removed from a 1973 GMC ¾ ton pick-up truck with a mileage of 23,500. Reportedly, the hose rubber cracked and frayed at the fitting causing a brake fluid leak. The hose separated when the shop removed it from the vehicle. Mr. Duff reported that several ¾ ton GMC trucks have been repaired in his shop for this type of failure.



OUTSTANDING SHOPS

Our outstanding shops are those shops that have sent into the PRP at least one part during the current month. The number in parenthesis before a shop's name identifies the number of consecutive months the shop has sent in a part. New shops that have just become active in the PRP are identified with an asterisk before their name. During December 1976, seven shops became new active participants in the PRP. Fourteen shops have sent in parts in consecutive months.

REGION 7

*C & S BRAKE SERVICE
Fort Worth, Texas

*J & G AUTO CLINIC
Lake Charles, Louisiana

REGION 8

(2)JOHN'S GARAGE
Nampa, Idaho

REGION 9

(3)DOYLE AUTOMOTIVE SERVICE
Seattle, Washington

*KINGCO BRAKE SERVICE
Seattle, Washington

L.A.D. ELECTRIC
Spokane, Washington

*SHARP'S AUTOMOTIVE
Seattle, Washington

(2)STOP & GO BRAKE & WHEEL
Portland, Oregon

REGION 9A

(5)AUTOMOTIVE CITY
San Francisco, California

*BEELINE ALIGNING SERVICE
Pacific Beach, California

(3)ISE AUTOMOTIVE SERVICE
Hollywood, California

KALLEN'S GARAGE
Van Nuys, California

SAMO WHEEL AND BRAKE SERVICE
Santa Monica, California

REGION 6

(4)AUTO HOSPITAL
Lincoln, Nebraska

*BRAKE-O-MAT
Evanston, Illinois

(2)DICK JORDAN'S STANDARD
Clayton, Missouri

HUTT AND STILES
Skokie, Illinois

J. GARTNER'S AUTO SERVICE
Chicago, Illinois

REGION 0

(4)HARRY'S AUTO SERVICE
Great Barrington, Massachusetts

SPARKY'S AUTO SERVICE CENTER
New Bedford, Massachusetts

REGION 1

(2)D & Z ATLANTIC
Cornwell Heights, Pennsylvania

GORDIE'S AUTO SERVICE
West Chester, Pennsylvania

(7)LONGBARD'S EXXON STATION
Poughkeepsie, New York

REGION 2

(2)AFRO-ENGINEERING
Falls Church, Virginia

(6)AUTO BRAKE CORP.
Norfolk, Virginia

REGION 3

(4)HAGAN SERVICE CENTER
Gainesville, Georgia

REGION 4

(2)BOB'S SERVICE STATION
Hammond, Indiana

REGION 5

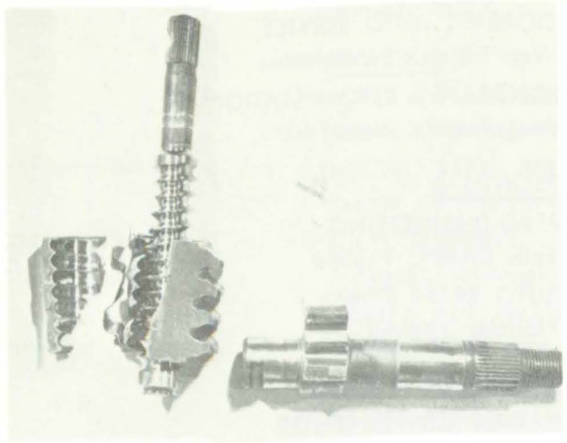
*BELOIT FRAME AND AXLE
Beloit, Wisconsin

FELD GARAGE
Kenosha, Wisconsin

TOMMY'S AUTO REPAIR
Sioux City, Iowa

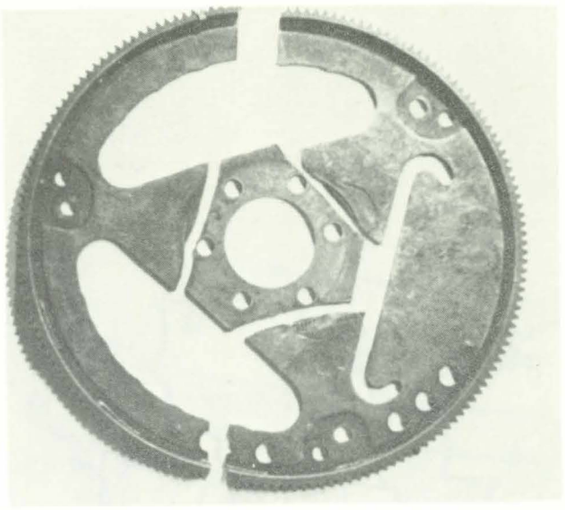
MANUAL STEERING GEAR BOX FAILURE

AUTO BRAKE CORP. in Norfolk, Virginia has sent the PRP some components that were removed from the manual steering gear box of a 1975 Chevrolet Series 30 Step Van with 21,696 miles. The steering reportedly failed while the driver was making a turn. No accident occurred as a result. Upon inspection, the shop found that the pitman shaft showed wear marks, bearings were worn, and the ball nut for the worm shaft was cracked in two. The pitman shaft, worm shaft, and ball nut are shown here. The shop states that the possible cause of the failure was lack of lubricant in the gear box. AUTO BRAKE CORP. also reports finding several other trucks, primarily Ford models between six months and two years old, with a lack of lubricant in the steering gear box. If your shop encounters similar conditions on any vehicle make, please let the PRP know. Thanks.



CONVERTER FLEX PLATE FAILURE

J. GARTNER'S AUTO SERVICE in Chicago, Illinois has returned a converter flex-plate that was removed from a 1973 Buick Century station wagon with a mileage of 49,548. The vehicle was equipped with a 350 CID engine and a 350 Turbo Automatic transmission. The hub apparently broke out of the flex-plate, suddenly, while the vehicle was being driven on the highway. As shown in the photograph, the outer mounting holes of the plate are elongated and worn, and the hub is broken away from the spokes. The part was too large to fit in a PRP mailbag, so the rim has been cut in two. The driver of the car reportedly experienced loss of drive power as a result of the failure. The vehicle was allowed to coast to the side of the road and out of the path of traffic. Special thanks to J. GARTNER'S for sending in the part. If your shop has encountered a similar failure please let the PRP know.



National Parts Return Program

Description and Function

- The PRP involves the voluntary submittal of failed automotive components by independent repair shops. Components 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 on these components to help the NHTSA identify the existence of safety-related, manufacturing defects in 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 notification campaigns when it has been determined that a defect relating to motor vehicle safety exists. The information obtained from these parts is also valuable in preparing Federal motor vehicle safety standards.
- Your shop can help. The parts that you send in will give vital information that cannot be obtained in any other way.

ITEMS OF INTEREST

- The PRP is still interested in receiving scored brake drums and rotors for use in an NHTSA test program. Unfortunately, some of the rotors that have been returned were scored or gouged too deeply (up to ¼ in.) for test purposes. The test program needs drums and rotors which, if machined (i.e., "turned down"), would not grossly exceed the manufacturer's recommended machining limits. Those from full size and luxury 1971–1976 General Motors cars are of particular interest. These include models such as the Chevrolet Impala, Pontiac Bonneville, Oldsmobile 88 and 98, Buick LeSabre and Electra 225, and Cadillac Fleetwood. The test program is directed toward determining what effect, if any, scored drums and rotors have on vehicle safety.
- "Traffic Safety '75, A Digest of Activities of the National Highway Traffic Safety Administration" is now available. Copies of this 43 page document are available free of charge upon request to the National Highway Traffic Safety Administration, General Services Division, Room 4423, Washington, D.C., 20590. Topics include Defects Investigation, Crash Survivability, Crash Avoidance, and others.
- TOMMY'S AUTO REPAIR in Sioux City, Iowa reported that his shop replaced the brake pedal support bracket on a 1967 Ford Mustang with a mileage of approximately 70,000. The brake pedal on the vehicle would reportedly stay depressed, because the support bracket bushing which supports the brake pedal swing shaft was worn and out-of-round. When a new support bracket was obtained, the bushing on it was also found to be out-of-round. TOMMY'S AUTO REPAIR also reportedly encountered this kind of binding condition on a 1969 Ford Mustang with a mileage of approximately 50,000.

  This information was received in response to the article and photograph that appeared in the August, 1976 PRP News, which described a brake pedal support bracket that had been removed from a 1967 Ford Mustang and was submitted to the PRP by GUS COOPER SERVICES, INC., Seattle, Washington.

  If any of our other PRP members encounter this type of condition, please let us know.