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

Vol. 5 No. 3

September 1979

INITIAL DEFECT IN GM JACKS

The NHTSA has announced an initial defect determination regarding the original equipment jack, Model 344788, provided with certain 1975 and 1976 Chevrolet C-10, P-10, G-20 and GM C-15, P-15 and G-25 light duty trucks. The jack is of a screw-type design and is placed under the axle of the vehicle and used to raise the chassis in order to change tires.

The NHTSA has warned individuals of the danger involved in using these jacks. The agency has received five reports of failures including three instances of the jacks dropping the vehicle they were supporting, resulting in one injury. GM has received 57 other reports of failures.

If these jacks must be used to change a tire, the following precautions should be taken: Select a flat, even surface for the jacking operation; lighten the vehicle load; stop raising the vehicle if the jack bends or deforms; place sturdy wooden blocks or other support under the axle after the jack is extended; never get under the vehicle while it is being supported by the jack.

Please remind your customers of the possible hazards involved in the operation of these jacks.

BEND OUR EAR!!

If you need mailbags, tags or info report forms, give us a **COLLECT CALL (703) 527-4500.**

BENDIX HYDRO-BOOST POWER STEERING/POWER BRAKE PROBLEMS ON AMERICAN CARS AND TRUCKS.

The NHTSA is currently looking into allegations of Hydro-boost failures on late model domestic vehicles allegedly due to casting failures which result in a loss of pressure to the power brake and steering system.

In a Hydro-boost system, power steering and power brakes are interdependent, utilizing one hydraulic pump to pressurize both. Reports of system failures include total loss of power assist steering and brakes, self-actuation of brakes upon executing a turn, and contamination of the brake fluid with power steering (automatic transmission) fluid.

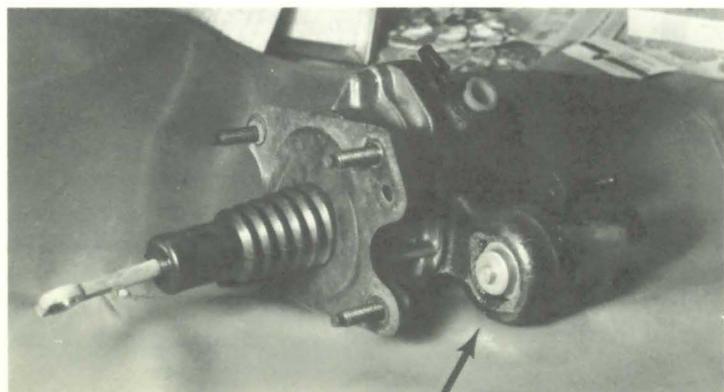
The photo below, taken from a 1977 Ford LTD station wagon, illustrates casting failure of the Hydro-boost in the area of the accumulator, resulting in a sudden total loss of power assist to both the steering and brakes.

Alleged failures in Ford vehicles include the 1976 and 1977 Lincoln

Continental, LTD and Lincoln Mark V. The PRP has had reports of failures in the Mark V with mileage ranging from 15-18,000 and 1977 LTD vehicles.

The Ford Motor Company has the Hydro-boost unit installed on 1975-79 full size Ford, Lincoln, and Mercury vehicles as well as the 1978-79 model Ford Granada, Mercury Monarch, and Lincoln Versailles. General Motors uses the Hydro-boost on all diesel engine equipped vehicles since 1974. The Chrysler Corporation has used the Hydro-boost unit on medium trucks and school bus chassis vehicles since 1976.

PRP members are encouraged to report any problems they have noted in the past with Hydro-boost systems on domestic vehicles, and to be sure to forward any information on Hydro-boost problems which they see in the near future.



FEDERAL MOTOR VEHICLE SAFETY STANDARDS

In a continuing effort to promote highway safety, additional Federal motor vehicle safety standards are presented below:

- **FMVSS 205**—Glazing Materials—Specifies requirements for all glazing materials used in windshields, windows, and interior partitions of passenger cars, multipurpose passenger vehicles, motorcycles, trucks and buses. Its purpose is to reduce the likelihood of lacerations and to minimize the possibility of occupants penetrating the windshield in collisions.
- **FMVSS 206**—Door Locks and Door Retention Components—Requires locking systems and specifies load requirements for door latches and door hinge systems on passenger cars, multipurpose passenger vehicles and trucks to minimize the probability of occupants being thrown from the vehicle as a result of forces encountered in vehicle impact.
- **FMVSS 207**—Seating Systems—Establishes requirements for seats, their attachment assemblies, and their installation in passenger cars, multipurpose passenger vehicles, trucks and buses to minimize the possibility of failure as a result of forces acting on the seat in vehicle impact.
- **FMVSS 208**—Occupant Crash Protection—Specifies requirements for both active and passive occupant crash protection systems for passenger cars, multipurpose passenger vehicles, trucks and driver's seats in buses.
- **FMVSS 209**—Seat Belt Assemblies—Specifies requirements pertaining to the manufacturer of seat belt assemblies on passenger cars, multipurpose passenger vehicles, trucks and buses. The requirements apply to straps, webbing or similar material, buckles and other fasteners, installation hardware, and to the installation, usage, and maintenance instructions for the assembly.
- **FMVSS 210**—Seat Assembly Anchorages—Specifies the requirements for seat belt assembly anchorages in passenger cars, multipurpose passenger vehicles, trucks and buses to ensure effective occupant restraint, and to reduce the likelihood of failure in collisions.
- **FMVSS 211**—Wheel Nuts, Wheel Discs and Hub Caps—Requires that winged projections be deleted from wheel nuts, wheel discs and hub caps on passenger cars, multipurpose passenger vehicles and equipment, eliminating a potential hazard to pedestrians and cyclists.
- **FMVSS 212**—Windshield Mounting—Requires that each windshield mounting on passenger cars must be anchored in place and retain one of two specified percentages of its periphery in a crash situation.
- **FMVSS 213**—Child Seating Systems—Specifies requirements for child seating systems, including their installation and use, to minimize the likelihood of injury and death to children in vehicle crashes or sudden stops.
- **FMVSS 214**—Side Door Strength—Specifies requirements for crush resistance levels in side doors of passenger cars to minimize the safety hazard caused by intrusion into the passenger compartment in a side impact collision.

PRP MEMBERS CONTRIBUTE TO UNIROYAL TIRE INVESTIGATION

In the June 1979 issue of the PRP News, we featured an article describing the safety-related defect investigation involving Uniroyal steel-belted radial tires announced by the Department of Transportation. The tires being investigated are those in the PR5 and PR6 lines. These tires can exhibit tread and belt separation causing hazardous driving conditions.

Brake-O-Mat in Evanston, Illinois submitted information to the PRP in response to the June article. The shop noted problems on the rear tires on a 1976 Buick Estate Station Wagon with 9,167 miles. The tires had shown signs of ply separation and vibrated when the vehicle was driven at both high and low speeds.

Gotham Auto Lease, Inc. in New Rochelle, New York submitted three tires to the PRP with similar problems. The tires exhibited belt separation causing the rubber to expand and form bumps in the tires. The tires shimmy causing bad vibration and the vehicle pulls to the left during operation.

The **State of Georgia** in Atlanta, Georgia also contacted the PRP to report similar problems with Uniroyal steel-belted radial tires.

We appreciate these assists and encourage all PRP members to watch for similar Uniroyal tire failures.

THE PARTS RETURN PROGRAM NEWSLETTER

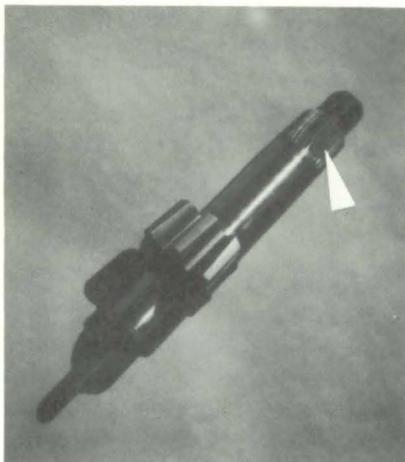
The Secretary of the U.S. Department of Transportation has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through March 31, 1982.

THE FORUM

A power steering cylinder head was submitted to the PRP by **K & B Brake and Wheel Service, Inc.** of Omaha, Nebraska. The cylinder head, which was scored, was removed from a 1976 Chrysler Newport with 42,707 miles. Scoring of the cylinder head reportedly caused the vehicle's power steering to lock when a fast turn to the right was executed.

Hansen Automotive of Minneapolis, Minnesota, reports a rear axle problem on a 1976 Ford Pinto with 25,943 miles. The axle fell off of the vehicle while it was in motion, carrying with it the rear brake lines. No accident occurred due to the fact that the vehicle was moving slowly. Upon inspection, the shop found an apparent insufficient weld on the flange which holds the axle bearing.

The steering sector shaft shown in the accompanying photo, was submitted to the PRP by **Art Dell's Garage** in Rensselaer, New York. It was removed from a 1977 Chevrolet



Impala with 22,329 miles. As indicated by the arrow in the photo, the shaft has several cracks and twisted threads at the point where it meets the steering arm. The result is an unstable connection between the two and potential loss of steering control. Any further information on this type of problem would be appreciated.

The 1979 Administrator's Awards for PRP members whose contributions have been particularly outstanding will be announced in the near future. It's not too early to start thinking ahead to next year's awards and your shop's contributions to the program. Take an extra minute today to send in that part or information report.

GM RECALL FOR WHEEL BEARING FAILURES PROBED

The Department of Transportation is looking into a recent General Motors Corporation recall involving possible wheel bearing failures in the entire 1978 production of Buick Century and Regal, Chevrolet Monte Carlo and Malibu, Oldsmobile Cutlass, Pontiac LeMans and Grand Prix cars, and GM Caballero and Chevrolet El Camino light trucks. The NHTSA is investigating to determine whether the problem is being properly corrected, and whether other model vehicles should be recalled.

The alleged failure, which was first described in the May 1978 issue of the PRP News, is due to inadequate lubrication of the front wheel

bearing. Excessive front brake heat caused by front suspension weight and design of the front disc brake rotors is transferred to the front outer wheel bearing causing its grease to become a liquid. This results in inadequate lubrication of the wheel bearing. General Motors recalled the vehicle under pressure from the NHTSA and Canadian Transportation safety officials.

Symptoms of inadequate lubrication involve a front-end vibration or grinding noise, but they are not always apparent. Continued operation of the vehicle with inadequate wheel bearing lubrication can cause a front wheel outer bearing failure, resulting in damage to the spindle

and loss of vehicle control or momentary loss of front disc braking.

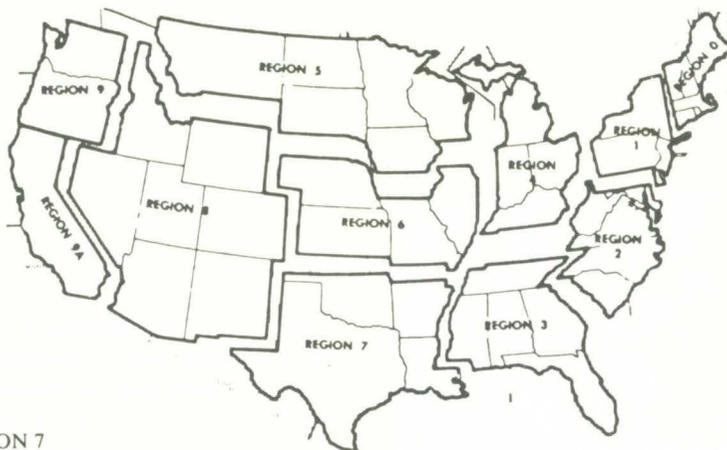
GM's proposed remedy to correct the alleged defect involves installing new outer wheel bearings, adding new bearing lubricant, coating the spindle with additional lubricant, and installing new grease retainer caps.

The NHTSA has received approximately 700 reports of front wheel bearing failures. Most of them occurred on vehicles with less than 24,000 miles.

The PRP is interested in similar wheel bearing failures in all sizes of 1975-79 GM model vehicle.

OUTSTANDING PARTICIPANTS

The members highlighted below have contributed parts or information to the PRP within the past month. Asterisks indicate first contributions for the year (July 1979 through June 1980). Numbers in parenthesis indicate consecutive active months.



REGION 7

- * **Fuselier's Auto Service, Inc.**
Lake Charles, LA
- * **C & S Brake Service**
Ft. Worth, TX

REGION 8

- * **Robertson's Automotive**
Fountain Hills, AZ
- (2) **Las Vegas Wheel Alignment**
Las Vegas, NV

REGION 9A

- * **Duane's Tune-Up Clinic**
Manteca, CA
- (2) **Ise Automotive Service**
Hollywood, CA
- * **A & E Automotive Service**
Fresno, CA

REGION 4

- * **Taylor's Garage and Service Station**
Akron, OH

REGION 5

- * **Day Nite Auto Station**
Kaukauna, WI
- * **Dave McMillen's Auto Repair**
Duluth, MN

REGION 6

- * **Hutt & Stiles**
Skokie, IL
- * **Brake-O-Mat**
Evanston, IL
- * **K & B Brake & Wheel Service, Inc.**
Omaha, NB

REGION 0

- * **Sheffield Auto Electric**
Sheffield, MA
- * **Glidden Auto Service**
Nashua, NH
- (2) **Botley's Garage**
Cape Elizabeth, ME
- * **Henniker Automotive**
Henniker, NH
- * **Curley's Auto Repair, Inc.**
Warwick, RI

REGION 1

- * **Art Dell's Garage**
Rensselaer, NY
- * **D & Z Atlantic**
Cornwell Heights, PA
- * **Stewart Auto**
Williamsport, PA
- * **Bob's Exxon Service**
Somers Point, NJ
- (2) **Gil's Safety Service**
Ridgewood, NJ
- * **Gotham Auto Lease, Inc.**
New Rochelle, NY
- * **John's Body Shop**
Binghamton, NY
- * **Kolesnik's Service Station**
Rochester, NY

REGION 2

- * **Auto Brake Corporation**
Norfolk, VA
- * **Garlick's Garage**
Roanoke, VA

REGION 3

- (2) **Wales Garage**
Ft. Lauderdale, FL

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