

CONTROL ARM RECALL: POLICE CARS ONLY

At the urging of Transportation Secretary John Volpe, Ford Motor Company has agreed to recall about 85,000 Ford-manufactured police pursuit vehicles and replace their lower control arms without charge. The action does not cover 1965 through 1969 non-police Fords and Mercurys equipped with lower control arms of the same type.

DOT's announcement of the action said that National Highway Safety Bureau investigators were able to "verify" only 37 cases of lower control arm failure (cracked or broken arms) in non-police vehicles. It failed to mention that the 37 were among 154 cases of non-police car failures for 1967-69 models reported to NHTSB by Ford Motor Company.

Ford had gleaned 87 per cent of the 154 cases from its warranty files. (Warranty-covered work customarily is done on cars of low mileage.) The remainder were based on Ford's "customer relations files," "service investigation reports" and oral reports from Ford field personnel and others.

DOT considered as "verified" only the 37 cases in which its personnel were able to contact the individuals who drove the vehicles at the time of the reported failures and then receive confirmation from the individuals of the detailed circumstances under which the failures took place. The NHTSB's investigation docket notes that in the non-police cases reported "successful contacts were made with 66 of these (154) people and sufficient information was obtained to indicate that 37 lower control arm failures had occurred."

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Among the 154, Ford gave NHTSB information on 65 failures in 1967 model non-police cars, only 5 of which NHTSB counted as "verified." In contrast, NHTSB was able to "verify" 20 of the 23 Ford-reported cases involving 1969 model non-police cars. Since on average the reported failures in 1969 models occurred more recently, car owners may have been better able to recall details of the events.

In its announcement to the public, DOT said that the Bureau's investigation led to the conclusion "that the failures are progressive fatigue failures." It said, "Both laboratory

and field tests support the Bureau's view that it is the severe impact loading encountered by police pursuit vehicles (for example, in crossing a median strip or a curb at high speed) that will initiate the lower control arm cracking that leads — under further severe impact loading — to a sudden failure."

The NHTSB docket, however, shows that among the 37 "verified" cases involving non-police cars, the failures occurred at accumulated mileages as low as 13 — without previous "severe impact loading" on the suspension system. In the 13-mile case, the control arm broke while the man was driving at about 25 miles per hour on a paved road that had a minor rut — "such as new over old pavement" — the day after he bought the car.

Two of the Ford-reported cases not "verified" involved 1969-model cars in Michigan. One control arm was found broken on the dealer's premises before any miles were recorded on the car's odometer, and another was found cracked and was replaced by a dealer after the car had been driven two miles, Ford records indicated.

The DOT recall announcement stated that "in one week alone, the week of June 6, the Bureau engineers examined 469 Ford vehicles in 23 cities, with the emphasis on checking high-mileage vehicles not used in police pursuit work. The results of this survey disclosed no cracks found in the control arms of private vehicles."

However, examination of the NHTSB docket shows that after his field investigative trip during that same week an NHTSB safety standards engineer reported his conclusion that the investigative methods used were not sufficient for detection of cracked control arms.

He said: "There has been no evidence shown that the possibility of having a cracked control arm is one which can be detected by an examination short of complete disassembly of the A-frame components. Thus, I feel further investigation in this problem should be done by locating possible fleets (from Ford or from regional phone directories) and making contact by phone to determine if control arm failures have been occurring."

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A CASE FROM THE DOCKET

In a notarized statement to the National Highway Safety Bureau, a business executive from Grand Prairie, Texas, described how the lower control arm in his business car, a 1969 Ford LTD, broke during November 1968. He stated it occurred as he was entering a shopping center parking lot in Houston, Texas, after returning from a business trip to Dallas. The following is excerpted from his statement as included in the NHTSB docket of its lower control arm investigation.

"The entrance to the parking lot is on a grade which I would estimate to be about 15 per cent and I was traveling at a slow speed. About midway up the grade, the right front end of the car dropped suddenly. My first impression was that I had run into a post or hit some metal object because I heard the sound of metal hitting concrete. Getting out of the car and investigating, I saw that the bottom side of the right front tire and wheel was sticking out

"In my opinion, had this failure occurred on the freeway, I would have been killed or seriously injured because the metal of the car would have dug straight in the ground causing the car to then roll over or somersault on its side. "

The NHSB investigation also included tests of new, unused control arms of the design used on both police and non-police Fords of the 1967-69 models. Two rounds of tests were conducted for NHSB by General Testing Laboratory, Inc., of Springfield, Va.

On August 3, the laboratory reported to NHSB the findings of its first round of tests, conducted on 94 unused arms acquired from suppliers in Delaware, Seattle, Charlotte and Atlanta. It concluded: "The visual and nondestructive testing evaluation of the unused control arms revealed surface conditions in and around the rivet holes, burrs and small cracks that are conducive to the formation of fatigue cracks."

On August 12, the same laboratory reported on its second tests, conducted on 13 unused non-police car control arms and 34 unused police car control arms acquired from San Francisco. Its findings were the same as for the first batch of arms tested.

The control arms used in 1965-69 police pursuit cars are the same as those used in non-police cars except for reinforcements welded to the sides of the control arms but not near the point of the reported failures. General Testing Laboratory's report to NHSB concluded, "The commercial arms exhibit the same conditions as the police arms."

The General Testing Laboratory test results were consistent with those reported to the NHSB by the Insurance Institute for Highway Safety after similar tests were conducted in May by Value Engineering Laboratory of Alexandria, Va., under contract to the Institute.

The Institute began an investigation into Ford lower control arm failures in March after receiving reports of the failures from police in Baltimore County, Md. It described its findings in a May 25 report to the NHSB which warned:

"Breaking of a lower control arm on an automobile allows the front wheel to which it is attached to fall out of place, resulting in complete loss of vehicle control Since the lower control arm . . . is a component that literally holds the car's front wheel in place, any actual or predictable degradation of its performance during the vehicle's operation must be considered a threat of the most serious magnitude to the lives of its occupants."

In its recall announcement, DOT said that in the failures "known to date," there had been "only one collision involving a second vehicle, no fatalities, and four reported minor injuries." It said that the failures "occurred without warning and resulted in partial loss of control of the vehicle."

Based on the \$33.50 retail price of the arm, cost of replacing two arms on each of 85,000 police cars would be about \$5.7 million, not including labor costs. Were Ford to recall all 1967, 1968 and 1969 cars equipped with the arms (approximately 3 million vehicles), the cost would be about \$200 million, not including labor.

PENNSYLVANIA BUS CRASH SPURS FEDERAL ACTION

The death of seven children and injury of 39 others in a chartered bus crash in Pennsylvania has prompted federal government to respond with action in several areas.

- The Department of Transportation's Bureau of Motor Carrier Safety has launched a safety inspection program to check 5,000 vehicles by the middle of October, concentrating on charter buses. During all of 1969, BMCS inspectors checked more than 47,000 vehicles, only 397 of them buses. BMCS officials report that during the current intensified inspection

program their early checks of 25 tour buses in Washington, D. C., and Hershey, Pa., discovered six buses that had to be ordered out of service because of safety defects.

- Rep. Fred B. Rooney (D-Pa.) has introduced a bill (HR 18918) to impose heavy fines for violation of Motor Carrier Safety Regulations and give DOT increased authority to suspend and revoke motor carrier operating rights for violations of safety regulations.

- Edward J. Speno, Chairman of DOT's National Motor Vehicle Safety Advisory Council, wrote Secretary Volpe urging him to take buses with "pop out" windows off the highway until they "meet standards of safety by the attachment of a positive latch to each window." Speno noted that "preliminary investigations of the Pennsylvania accident show that the windows of the bus popped open when it rolled over, thus allowing many of the children to tumble out. The fatalities and most serious injuries were the result of this involuntary action."

- Coincidental to the bus crash, the National Highway Safety Bureau and the BMCS both have proposed new performance standards and amendments to existing standards. The new regulations would outlaw bus windows that pop out in crashes and make them easier to open from inside the bus so they could be used as emergency exits.

NTSB WARNING: SCHOOL BUSES BADLY BUILT

Most school buses are structurally capable of resisting "wind and rain" but little else, concludes a National Transportation Safety Board study submitted to Transportation Secretary Volpe. Using two school bus crashes in Alabama as examples, the Board pointed out that school buses are assembled in such a manner that they "keep out weather or hold insulation in place," but are not strong enough "to be regarded as more than covering material."

Most school buses, the study points out, are made by simply fastening a school bus body to a truck chassis. The sparse use of metal fasteners (rivets) causes structural weakness. The Board said that "far more rivets" are used to fasten panels in transit-style buses than in most school buses.

Lack of sufficient rivets allows the sheet metal panels on school buses to snap apart in a crash "exposing the children to sharp metal contact" similar "to the edge of a shovel or a cookie cutter," the Board said. NTSB recommended that:

- The National Highway Safety Bureau investigate and study structural weakness and the part it plays in causing injuries in school bus crashes.

- NHTSB set standards for the structural strength of school buses. The Board originally recommended the action in October 1967 but the Bureau has failed to take action thus far. The Board is now recommending that the Bureau pursue the matter.

- School bus manufacturers start using panel fastening methods that will prevent the panels from breaking apart at the seams or raising sharp cutting edges in a crash.

- The National Education Association adopt a policy fostering such safer bus construction by manufacturers.

Sen. Edward M. Kennedy (D-Mass.) told the U. S. Senate that the findings of the NTSB study were "shocking." He urged Secretary Volpe "to expedite the issuance of rules concerning . . . aspects of school bus safety, many of which have been pending for three

years." Kennedy also has written the School Bus Manufacturers Institute and the NEA asking for "an immediate study."

Officials of the School Bus Manufacturers Institute were studying the NTSB report and were not yet ready to comment, a spokesman told Status Report, and an official in the NEA safety office said the education association has "no response" to the NTSB report. The NEA official said his association would not act on the report until the next meeting of the National Conference on School Transportation. Such meetings are held approximately every five years, he said. The most recent meeting was in May 1970.

FOUR BILLS AUTHORIZE TRUST FUND MONEY FOR SAFETY

Sen. Jennings Randolph (D-W. Va.), chairman of the Senate Public Works Committee, has introduced his version of the "Federal Aid Highway Act of 1970," bringing to four the number of bills pending in Congress that would affect funding of programs under the Highway Safety Act of 1966.

All four of the bills would authorize the use of Trust Fund money for highway safety to some extent. The bills, as they pertain to highway safety, are outlined below.

The Randolph bill (S 4260) would:

- Authorize \$100 million in Trust Fund money for matching aid to states and communities for their highway safety programs (Section 402 of the Highway Safety Act of 1966) in both fiscal years 1972 and 1973;
- Authorize \$70 million from the Trust Fund for state-local highway safety demonstration and research projects (Section 403 of the Highway Safety Act of 1966) for fiscal year 1972 and \$115 million from the Trust Fund for fiscal year 1973;
- Change apportionment of funds to benefit less populous states. Current distribution of federal funds is solely on the basis of state population in relation to national population. The change would provide that 25 per cent of the funds to states be apportioned on the basis of public road mileage and the remaining 75 per cent on the basis of population.

Retitling of the National Highway Safety Bureau as an "administration" within DOT is not considered in the Randolph bill. Staff members of the Senate Public Works Committee don't think the Department needs congressional approval for such administrative reorganization.

The Administration's bill (S 4055), introduced by Sen. John Sherman Cooper (R-Ky.), would:

- Provide from the Trust Fund \$70 million for fiscal year 1972 and \$115 million for fiscal year 1973 for highway safety research and demonstration projects under Section 403. The Administration's bill does not request authorizations for matching funds under Section 402 because \$179.7 million in authorizations remain available from fiscal year 1970-71 enactments;
- Rename the National Highway Safety Bureau the "Federal Highway Safety Administration" and increase the salary and rank of its "administrator."

Sen. Jack Miller (R-Iowa) has introduced a separate bill (S 4295) identical to the authorization sections of the Administration's bill.

Senate hearings on the three bills are scheduled to begin Sept. 9, 1970.

The House Public Works Committee, which has already concluded hearings on highway legislation, is expected to report out a version of the "Federal Aid Highway Act of 1970" shortly after the House reconvenes later this month.

One bill (HR 17620) being considered by the Committee was introduced by Rep. William C. Cramer (R-Fla.). It would:

- Authorize \$105 million in matching funds for highway safety programs each for fiscal years 1972 and 1973. Of that \$105 million, \$15 million would be appropriated from the Trust Fund.
- Authorize \$40 million each for fiscal years 1972 and 1973 to be spent for highway safety research and demonstration projects under Section 403.
- Rename the National Highway Safety Bureau the "Federal Highway Traffic Safety Administration."
- Forbid DOT from issuing any additional state-local safety standards "unless specifically authorized to do so" by Congress. This, in effect, would freeze the number of standards at 16.
- Change the population-based formula for allocating funds to states to a 75-25 formula based on population and public road mileage, identical to Senator Randolph's proposal.

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