

NHSB STEPS BACKWARD ON OCCUPANT PROTECTION STANDARD

Auto manufacturers would have to do little more than provide safety belts that remain intact in a 30 mile per hour crash to satisfy a newly proposed interim occupant protection standard.

The National Highway Safety Bureau proposed last May to require "passive" restraints — such as "air bags" — in all cars by Jan. 1, 1973. At that time it also proposed an "interim" standard to provide increased occupant protection pending final requirement of the passive restraint — those which require no action by car occupants.

Now, the bureau has amended — and seriously weakened — that "interim" May proposal. The amended plan would give automakers three options, the most easily met of which would require only lap and shoulder harnesses in front seat outboard positions, and lap belts in all other positions, somewhat stronger than those now required.

The new interim proposal was included in a batch of interrelated occupant protection proposals made public Sept. 25 by the bureau.

Many of their provisions are below commonplace practice in the automobile industry. Following is an analysis of each of the three standards the bureau is proposing.

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STEERING ASSEMBLY

The bureau proposed to amend its standard No. 203 which currently requires that steering columns in passenger cars yield and absorb energy under crash impact. The changes would be effective for vehicles manufactured after Jan. 1, 1973.

The proposed amendment would:

- Apply to multipurpose passenger vehicles, trucks and buses weighing less than 10,000 pounds, as well as passenger cars;

- Require that steering wheel hubs be padded — something already done on many models;
- Require that the total impactable surface of the steering wheel and hub be at least 40 square inches — a level commonly exceeded in new cars;
- Require that the wheel "pivot or flex" if not impacted over its full face, so that the force of the impact can be distributed over a larger portion of the driver's body;
- Lower from 2,500 pounds to 1,800 pounds the force that a steering column must experience from a test torso before it begins to yield — but raise from 15 to 20 miles per hour the speed at which the test torso must strike the wheel with that force before the wheel yields.

One effect of the last requirement will be to raise the minimum acceptable length of energy-absorbing elements in steering columns — although probably not beyond the length already common on many larger cars.

INTERIOR PADDING

Standard 201 now designates areas of passenger cars which must be padded. The amendment would extend this to also cover multipurpose passenger vehicles, trucks and buses weighing less than 10,000 pounds.

Changes would require padding on more interior surfaces of the vehicle, set requirements for padding thickness, softness and hardness, and further reduce sharp edges on such things as knobs, levers and door and window handles.

(Last month bureau officials told DOT's National Motor Vehicle Safety Advisory Council that they now believe automakers may be able to provide the passive restraint protection the NHTSB seeks with "minor improvements" in padding and other existing components instead of air bags.)

The present interior padding standard requires padding on arm rests, sun visors, the tops of seat backs and the top of the instrument panel on the passenger's side. The proposed amendments would extend such coverage to the face of the instrument panel on the passenger's side, the rear facing of front seats, roof interiors, support pillars and the mounts of interior rearview mirrors — all of which now are being padded to some degree by many manufacturers.

In addition, the new amendment proposes to require padding on floor-mounted consoles and the base of the instrument panel in the driver's knee area — areas not customarily padded in today's cars. In many instances, the proposed amendment would increase the amount of padding required in most of the areas covered.

Under the proposed rule, sun visors would have to be at least three quarters of an inch thick, a level exceeded in many 1971-model cars.

Also weak is the proposed amendment covering "headers" — the metal beam fitted across the roof above the windshield and behind the roof lining. The proposed rule would

RULES PROPOSED FOR SEATS, ACCELERATORS, BRAKE FLUID

In other rulemaking action the bureau is proposing a new standard that would prevent accelerator malfunction by requiring that both driver-operated and automatic accelerator control systems return the engine to idle when they are disengaged. It would not allow automatic accelerators — so-called "cruise control" devices — to operate below 20 miles per hour or above 85 miles per hour. The proposed effective date of the standard is Oct. 1, 1972. Comments must be received by the bureau by Dec. 29, 1970.

Two new rule amendments recently proposed by the bureau deal with seat anchorages on passenger cars and hydraulic brake fluids.

The first would strengthen its standard No. 207, governing performance of seat anchorages on passenger cars, by strengthening it and extending it to apply to multipurpose passenger vehicles, trucks and buses effective Jan. 1, 1972.

The second, a proposed amendment to the bureau's brake fluid standard (116) would alter requirements for the physical and chemical properties of hydraulic brake fluids, improving performance under extreme operating temperatures, effective Oct. 1, 1971. Comments must be received by the bureau by Dec. 28, 1970.

require that the beam's exposed edge be covered with at least a half inch of padding extending 12 inches rearward on the roof of the car. But, even with curved edges and padding, the header beam is a much greater hazard than the so-called "skid header," widely used on GM cars since 1969 and now on some Chrysler Corp. cars.

The hazard of the beam-type header is that when occupants of a crashing car are hurled upward and forward their heads are likely to be fractured by the rigid roofbeam. In contrast, the skid header is sloped and contoured to guide the occupant's head into the more resilient laminated windshield. (GM research has shown since July 1968 that the skid header can reduce head impact severity by more than 50 per cent.)

According to some safety researchers, padding either the beam-type or skid header would cause a crash occupant's head to dig into the cushioning material and be stopped suddenly, instead of having his head guided away from the area as is done by the unpadded "skid header."

The proposed header provisions would be effective on vehicles manufactured after Jan. 1, 1975. All other provisions would be effective Jan. 1, 1974. Comments on the proposed amendments to both the steering assembly and interior padding standards must be received by the National Highway Safety Bureau by Dec. 22, 1970.

INTERIM OCCUPANT RESTRAINTS

The third proposed standard would give automakers a choice of three occupant restraint systems to meet on cars manufactured between Jan. 1, 1972 and Jan. 1, 1973 — assuming that passive restraints are required by Jan. 1, 1973, as proposed by NHTSB.

Option 1: Under this option manufacturers could put passive restraints in cars by 1972 rather than waiting for the later deadline. The Bureau lists "passive cushioning of the vehicle interior, self-fastening belt systems, crash deployed nets, 'blankets' and air bags" as possible ways of satisfying the first option.

Option 2: If car makers choose the second option, they would have to install lap belts (but not shoulder harnesses) in all seating positions, as now required. The belts would have to somewhat reduce injury in a 30 mile per hour barrier crash. Or, under this option, they could provide lap belts and remodel their vehicle interiors to meet the new 201 and 203 standards in 1972 instead of the later effective dates included in the proposed standard amendments.

Option 3: The most easily satisfied option would allow auto manufacturers to use lap and shoulder harnesses in front outboard seats and the lap belt in all other seating positions — exactly what current standards require. The only performance requirement for this option is that the belts retain a test dummy and not break or unlatch in a 30 mile per hour barrier test crash. The standard does not set injury criteria for this option.

Both options Two and Three would require visual and audible warning signals which are activated when front outboard seats are occupied and belts are not in use. They also require automatically adjusting retractors on all lap belts — commonplace on today's cars — and that the driver's belt be operable with one hand.

In two other closely related standard amendment proposals, published Oct. 1, the bureau is proposing to require stronger seat belt anchorages in cars by Jan. 1, 1971, and lap and shoulder harnesses with the strengthened belt anchorages in trucks and multipurpose vehicles by July 1971. The lap belts would be required in all seating positions, including rear- and side-facing seats. In buses, lap and shoulder belts would be required for drivers. None would be required for bus passengers.

Under the May proposal for an interim "passive restraint" rule, the bureau would have offered only two options — installing passive restraints (as in Option One of the revised proposal) or installing lap and shoulder harnesses in all seating positions, as in the October proposal scheduled to go into effect in 1971. Except that, under the May interim proposal, manufacturers choosing the lap-and-shoulder-harness option would have had to meet head, chest, abdomen, pelvic and leg injury criteria in a 30 mile per hour barrier test crash.

The third option of the revised interim proposal does not include any injury criteria. The second option includes injury criteria but those covering pelvic and abdomen injury have been eliminated and those covering head, chest and leg injury have been reduced.

Comments on the revised proposal for an interim occupant protection standard must be received by the bureau by Oct. 26, 1970. All comments on this and other standard amendment proposals should be addressed to Docket Section, National Highway Safety Bureau, Room 4223, 400 Seventh Street S. W., Washington, D. C., 20591.

DOT ALERTS FORD OWNERS ON CONTROL ARM HAZARD

Secretary of Transportation John Volpe has alerted owners of some 4 million Ford-made automobiles that their lower control arms — a component which keeps front wheels in place — may be defective under conditions of "extreme abuse."

The announcement, which came in the form of a "consumer protection bulletin" from the department, was the latest outgrowth of investigations into Ford lower control arm failures that have been in progress since spring.

Volpe's statement, which fell short of ordering Ford to notify owners of the involved cars that their vehicles may be hazardous, drew an immediate reply from the auto manufacturer that "there is no defect in the control arm." The reply said that owners of the involved cars, which span model years 1965 through 1969, would have to pay for "inspection or replacement" of any lower control arm brought in because of the DOT warning, "as would be the case with any accident damage."

DOT's action came by means of three issuances during the day of Oct. 14.

The first was a press release saying that DOT was establishing a "consumer protection bulletin" system to alert car owners of safety problems "as soon as we know we have a genuine hazard." The system is to protect the motorist from "taking serious risks (with suspected defective vehicles) too long before a defect notification campaign finally comes to his rescue."

The second and third issuances were the bulletin dealing with the Ford lower control arm and an accompanying press release. In these, DOT said that:

- Ford owners who suspect that their lower control arms may be defective should "seek immediate inspection and/or control arm replacement." No mention was made of an earlier report, from a DOT field investigator, that the defect cannot be detected by inspection "short of complete disassembly of the A-frame components."

- Owners whose vehicles "have suffered wheel impacts sufficiently severe to blow out front tires or dent front wheel rims" should have their arms replaced or at least inspected. The DOT announcement did not say how many failures, if any, discovered in the past were associated with blowouts or dented front wheel rims.

- When lower control arm failure occurs, "It results in sudden front wheel collapse without prior warning."

- Ford owners experiencing failures should contact the National Highway Safety Bureau, Department of Transportation, Washington, D. C., 20591.

The department's action drew an immediate critical statement from the Center for Auto Safety, an organization sponsored by Ralph Nader. Center Director Lowell Dodge said his group is "distressed that DOT provided only a partial warning to motorists of the dangers inherent in the Ford lower control arms."

Dodge said several models not listed in the DOT bulletin, including the 1967 Thunderbird, are equipped with the suspect arm. He also enumerated examples drawn from the

bureau's docket of Ford-made cars on which lower control arms had failed at odometer readings of between 0 and 13 miles, presumably without "severe wheel impacts at high speeds."

Both Dodge and Nader have been demanding for some time that the bureau require Ford to notify owners of the involved cars that a defect exists as defined by the Traffic and Motor Vehicle Safety Act of 1966. This presumably would lead to a Ford-financed recall of the cars and replacement of the arms.

The Ford lower control arm matter surfaced into public attention with the release of an investigation report by the Institute in June. The report grew out of lower control arm failures found on police cars early this year.

In August, DOT announced that Ford had agreed, at the federal agency's urging, to recall the 85,000 Ford-made police pursuit vehicles equipped with the arm and replace the arms without charge. DOT took the position at that time that there was not sufficient evidence of a hazard to warrant further action including non-police cars.

CONSUMER GROUP PETITIONS FOR "NO-BURN" STANDARD

For the first time in its five-year history, the National Highway Safety Bureau has been petitioned by a consumer group to strengthen a proposed motor vehicle safety standard.

The Center for Auto Safety, an organization supported by Ralph Nader and Consumers Union, has petitioned NHTSB to strengthen its proposed standard to regulate the flammability of motor vehicle interiors.

In a letter to NHTSB director Douglas Toms, Nader said that the bureau "is decidedly failing in its mission" to increase motor vehicle safety by proposing to issue a standard that "is inexcusably weak."

The bureau's standard would require that materials used in vehicle interiors burn at no more than four inches per minute. Nader is seeking a standard with a "zero burn rate" that would require manufacturers to use self-extinguishing materials in vehicle interiors. Such a requirement is described by Nader as being technically and economically feasible.

Lowell Dodge, director of the petitioning Center for Auto Safety, pointed out that the bureau's four inch burn requirement is similar to one adopted by the Federal Aviation Administration 23 years ago.

In comments to the bureau, General Motors and Ford have requested that a 15 inch per minute burn rate be adopted. This, the center says, is only slightly lower than the burn rate of paper toweling. Other American car makers and material suppliers favor an eight or 10 inch per minute burn rate. Japanese and some European manufacturers have commented favorably on the bureau's four inch burn rate requirement.

(The bureau is also currently considering a rule to force every manufacturer to publicize information on the flammability of interior materials in each of its models.)

However, further action on this proposed "consumer information" standard has been deferred pending issuance of a final flammability performance standard.)

According to the bureau's recently-published "master plan" timetable for motor vehicle safety standards, the standard on vehicle interior flammability was to have been issued June 30, 1970, with an effective date of Jan. 1, 1971.

If the bureau acts favorably on the Center for Auto Safety petition, administrative procedures governing the issuance of motor vehicle safety standards could cause an even greater delay in issuing a final rule.

As a bureau spokesman confirmed, if the petition were granted, the bureau would have to issue a new notice incorporating the tougher requirements and afford other parties a minimum of 30 days to comment on it. The bureau then would have to assess those comments and, on the basis of that assessment, decide whether to issue a final rule. The policy is that proposed standards may be weakened without new notice to the public, but not substantially strengthened.

VOLKSWAGEN DEVELOPING COMPACT MODEL ESV

The Volkswagen company is developing an experimental safety car designed to prevent major injury to its occupants in a 50 mile per hour head-on collision. The development was initiated in response to urging by the National Highway Safety Bureau.

During the summer, when the Department of Transportation announced contracts for developing three prototype experimental safety cars, Secretary John A. Volpe said the department also was negotiating with foreign auto manufacturers to get into the field. The DOT suggestion, relayed through the North Atlantic Treaty Organization, was for development of a car weighing 2,000 pounds — half the weight of the American prototypes being developed.

Dr. Kurt Lotz, chairman of the board of Volkswagen, said the firm has no plans yet to put the prototype car into production but that its development would influence design of future VW models. He said a ranking official of the NHTSB and government representatives of the 15 NATO countries would visit the main Volkswagen plant at Wolfsburg, Germany, on October 21 to discuss the project, according to the New York Times.

In addition to the difference in weight, the VW version of the safety car will have another important difference from the American-developed cars: it intends to prevent major injury or death in 50 mile per hour head-on collisions. The specifications for the cars being developed under DOT contracts call for minimized injury in both a 75 mile per hour head-on collision and a 50 mile per hour barrier test crash.

The American experimental cars are being developed by American Machine and Foundry Company's Advanced Systems Laboratory and Fairchild Hiller Corporation's Republic Aviation Division. DOT also awarded General Motors a contract — for one dollar — to develop a safety vehicle.

NADER HITS GM FOR "BLACK BOOK" POLICY

Attorney Ralph Nader has urged the National Highway Safety Bureau to investigate a General Motors "black book" which, according to Nader, provides guidelines for Cadillac dealer service departments in determining whether to repair auto deficiencies at reduced cost "if the owner is very insistent."

Nader claims that the book, entitled "Confidential Policy Guide," was provided to Cadillac zone service representatives along with printed instructions that it was "not to be directly quoted or given to dealer personnel." The book is reported to establish policies covering 1965, 1966 and 1967 Cadillacs.

In a letter to NHTSB, Nader cites instructions which allow a dealer to replace, at reduced price to the owner, 1967 Eldorado drum brakes. "One clear implication," he states, is that "it may well be that the Cadillac Motor Division is withholding knowledge of a safety related deficiency."

He points out in his letter that such "confidential guides" could be used by the bureau to identify safety related defects. The bureau has requested that GM furnish copies of the policy guide for its examination.

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WOMEN TO MEET ON ANTI-ALCOHOL PROGRAM — More than 500 women are expected to come to Washington, D. C., Jan. 11-13, 1971, as part of the Department of Transportation's campaign against the abusive drinker who drives.

The National Highway Safety Bureau, in conjunction with the National Association of Women Highway Safety Leaders, will sponsor the "Forum on Traffic Safety Alcohol Countermeasures for Women's National Organizations." According to NHTSB, the Forum's purpose is to "develop understanding and to seek further solutions to the problem of alcohol involvement in highway crashes."

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