

Institute Urges Stronger Child Restraint Standards

The Insurance Institute for Highway Safety has agreed with federal officials on the need for revised standards on child restraints, and has suggested ways to strengthen the eventual rules.

Commenting on the proposed revision of two closely related safety standards by the National Highway Traffic Safety Administration (NHTSA), the Institute strongly endorsed a requirement for crash testing of child restraints. In May NHTSA published a notice of proposed rulemaking that would amend both the existing child restraint standard (FMVSS 213) and a standard for seat belt assemblies (FMVSS 209).

“Since crash forces are dynamic, not static,” the Institute commented, “the standard *should* require compliance with performance measured in dynamic tests. Moreover, since thousands of children annually are in crashes in which the impact speeds are far in excess of the 30-mile-per-hour simulated crash proposed, that test speed realistically would have to be considered as of minimal adequacy at best.”

The Institute was critical of a provision that would require crash testing at only 20 mph of those child seating systems designed to use a tether, when fastened only by a lap belt. Such a proposal “makes no logical sense,” said the Institute, urging that this requirement too be raised to at least 30 mph.

There should be no exemptions of equipment from the child restraint standard, the Institute stressed. “Since the purpose of the standard is to protect children, and since children do and will ride in *all* of the types of restraints provided in the marketplace, the standard should cover *all* such devices,” the Institute commented.

Other comments in the Institute filing included:

- **Provision of Lap Belts with Passive Belts** — “Since many children will continue to ride for the foreseeable future in child restraint systems in all vehicle passenger seating positions, it would make no sense whatsoever not to require all passenger seating positions to be equipped with the lap belts necessary to properly anchor those child restraints. This specifically includes passenger positions equipped with passive belts.”

- **Rear Seating Positions** — “The agency should require instructions on child restraint systems informing users, however remote from the point and time of sale, ‘that the center rear seating position in passenger cars is the safest seating position and that child restraints should therefore be installed in that position.’ ”

- **Consequences of Failure to Use Properly** — “Since there is widespread unfamiliarity with the ways in which child restraints decrease injury if properly used — or increase injury or at best make no difference

if not properly used – the agency should go out of its way to require comments on the consequences of both proper and improper use, to help adults understand what can happen to unrestrained or improperly restrained children in a crash.”

- **Components to Attach the Restraint to the Vehicle Seat or Seat Back** – “Since such components, including those that extend between the seat and seat back, are notoriously inadequate in restraining child seating systems, and because their presence can mislead users as to the need for securing the child restraints with lap belts, they should be prohibited.”

- **Tether Strap Anchorages** – “If the agency concludes that only through the use of properly anchored tether straps can specific levels and types of crash protection for children in child restraint systems be achieved, it should go out of its way to facilitate the use and proper anchorage of tether-equipped devices. In line with such a possible conclusion, and recognizing that many potential users of such devices would probably never go through the nuisance of providing the special anchorages required for the straps, the agency should require such anchorages uniformly in all vehicles in which such seating systems could be installed. However, if the agency concludes that there are, in fact, design approaches not using or requiring such tethers that can provide at least comparable levels and qualities of crash protection performance, then it should go out of its way to discourage the use of tethers, and should not require anchorages for them, because tethers at best are a special nuisance”

- **Car Beds** – The proposed requirement for car beds to be designed to be installed perpendicular to the longitudinal axis of the vehicle “is sound and completely consistent with present knowledge of the relevant body injury thresholds and the need to distribute the crash forces broadly.”

Bridge, Rail-Crossing Programs Highlight Funds Bill

A multibillion dollar program greatly expanding efforts to replace unsafe bridges and a \$760 million program to make rail crossings safer were included in an authorization bill passed by Congress in the closing days of the session and later signed by President Carter.

On October 14 Congress passed the Surface Transportation Assistance Act of 1978, authorizing appropriations for highway construction and safety programs and mass transit projects for the next four years. However, the amount of funds actually available for specific Department of Transportation programs in the first year, fiscal 1979, is still uncertain, since the appropriations bill was passed in early August and did not specify appropriated funds for several of the programs authorized in the Surface Transportation bill.

Among the most significant safety-related provisions of the authorizations bill are:

- A \$625 million program for correcting high-hazard locations, removing roadside obstacles, and installing standard pavement markings on federal-aid system roads, with 90 percent federal funding;

- An \$800 million program for improving safety on non-federal-aid system roads with 75 percent federal funding;

- A \$760 million program for improving protection at rail/highway grade crossings, with 90 percent federal funding;

- A \$4.2 billion program for replacing or rehabilitating “unsafe” but “significantly important” bridges, either on or off the federal-aid road system, with 80 percent federal funding;

- \$1 billion to assist state and local governments in carrying out state highway safety programs and to conduct federal safety-related research and development;
- \$30 million for grants to states, local governments, and nonprofit organizations to develop “innovative approaches to highway safety problems”;
- \$16 million for the Federal Highway Administration (not the National Highway Traffic Safety Administration) to conduct a nationwide highway safety education media campaign.

The bill makes permanent the federal-aid program for resurfacing, restoration, and rehabilitation (R-R-R) of the Interstate system and provides \$900 million more for the program through fiscal 1983. It also requires the states to expend at least 20 percent of their federal-aid primary and secondary road funds for R-R-R projects (totaling \$1.7 billion through 1982). The level of safety improvements to be required in connection with such projects has been hotly debated for more than a year, and the FHWA has recently proposed substantially weakened standards for R-R-R work. (See *Status Report*, Vol. 13, No. 15, Oct. 30, 1978).

Other safety-related provisions of the bill include:

Utility installations on federal-aid rights-of-way: No utility installations would be permitted on federal-aid rights-of-way which would “adversely affect any aspect of [highway and traffic] safety.” Utility poles are now among the most frequently struck roadside obstacles, and new poles are commonly being placed very close to roadways.

Maintenance standards: The Federal Highway Administration (FHWA) is directed to develop maintenance standards for the Interstate system by next October. States will then be required to maintain the system in accordance with the standards; failure will result in a 10 percent reduction in the state’s Interstate funding. (The General Accounting Office last year strongly criticized FHWA’s failure to establish maintenance standards for all federal-aid roads; see *Status Report*, Vol. 12, No. 4, March 2, 1977.)

55 mile-per-hour national speed limit: States that fail to reduce the number of vehicles driving over the 55 mile-per-hour limit will face reductions in their federal-aid highway construction apportionments; states that do better than the specified compliance schedule will be eligible for additional funds. (Although the bill authorizes \$50 million for each of the next four years to assist states in carrying out this mandate, the appropriations bill passed in August did not appropriate any funds for it. At a recent meeting of state highway safety program officials, Congressional staffers expressed the view that already appropriated Highway Safety Program funds may not be used for the 55 mph program. It is, therefore, uncertain whether any funds are available to enforce the program during fiscal 1979.)

Motorcycle helmet study: The Department of Transportation (DOT) is directed to make a one-year study of the effects of helmet law repeal. (See *Status Report*, Vol. 13, No. 12, Aug. 21, 1978, and the article on page 6 of this issue, for results of several recent DOT studies of the increased motorcycle deaths and injuries in helmet law repeal states.)

Seat belt use: States are directed to expend at least 2 percent of their federal highway safety program funds on seat belt use promotion; DOT is to conduct a one-year study of ways to encourage belt use.

Federal standards for state highway safety programs: Although Congress did not adopt the Administration proposal to eliminate most of the 18 federal standards for state highway safety programs developed under the 1966 Highway Safety Act, this bill substantially expands DOT’s authority to waive the standards and permit states to develop safety programs based on their own determination of problems and

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suitable countermeasures. The bill also specifies that state programs must be administered by a "state highway safety agency," rather than a "state agency," as the law previously required. The House Public Works Committee report (No. 95-1485) on this provision stressed that the intent is to significantly strengthen the power and authority of state officials responsible for safety programs.

National Driver Register: DOT is directed to study for one year "the need for, and, if necessary ways and means to establish" a national computerized driver register. A tougher bill, requiring the establishment of such a register, was not included in the final law.

New Field-Of-View Standards Proposed

The National Highway Traffic Safety Administration (NHTSA) has proposed rulemaking to assure better visibility for vehicle drivers, both through the windshield and via rear-view mirrors.

The agency reported an analysis of National Safety Council statistics showing that between 1974 and 1976, approximately 8.5 percent of all crashes involved lane changing and passing. NHTSA proposed amending Federal Motor Vehicle Safety Standard 111 covering rear-view mirrors, to reduce blind spots, thereby cutting down the amount of head and eye movement drivers must make in order to see whether the road beside or behind them is clear.

The proposed amendments would upgrade the mirror systems of all motor vehicles and would also specify new requirements for mirror breakaway characteristics, location and mounting, and shatter resistance. These requirements would help protect "occupants, cyclists, and pedestrians from injuries caused by rigid mirror mountings," NHTSA said. (In 1971, NHTSA proposed new performance standards but postponed further rulemaking until it had conducted more research. See *Status Report*, Vol. 7, No. 22, Nov. 22, 1972.)

In a simultaneous notice, the safety agency said it would propose a new safety standard setting requirements for a minimum field of view through windshields and other windows of motor vehicles. The new rule would also assure that windshields and adjacent side windows on buses would provide drivers with a clear view of pedestrians, the agency said. The size and location of sun visors would also be specified, and the rule would set maximum sizes for obstructions within the direct field of view for such things as "A" pillars (the front body to roof supports), and low inside mirror mountings.

According to NHTSA spokesman Charles Kaehn, the proposed rule would set rear window and rear side passenger window field-of-view minimums for passenger cars by limiting obstructions to 15 degrees for any one obstruction (such as a side pillar or rear pillar) and a maximum of 24 degrees combined. Kaehn said NHTSA is taking a "reasonable design approach, based on the design of today's models." Fast-back designs and exaggerated carriage models that feature large areas covered with sheet metal serving only as a design function, "would have to be minimized," Kaehn said. For example, in tests performed by Dynamic Science, the 1978 Ford Thunderbird and AMC Concord would not meet the total allowable obstruction test for the right rear quadrant. These requirements would not apply to multipurpose vehicles, trucks, and vans, however.

The proposed new rule would also set limits on the amount of tinting permitted in windshields, since low light transmittance makes driving at dusk or night more hazardous, particularly for older drivers, NHTSA said. The rules affecting direct field of vision would be applicable to cars, buses, trucks, and multipurpose vehicles. Both proposed rules are scheduled to go into effect by Sept. 1, 1981.

Comments should be submitted to the agency no later than March 6, 1979, and should be addressed to Docket No. 70-7, Notice 5, Fields of Direct View, and Docket No. 71-3a, Notice 4, Rearview Mirror Systems, Docket Section, Room 5108, 400 Seventh St., S.W., Washington, D.C. 20590.

NHTSA To Shift Rule On VINs, Proposes Fixed Format

The National Highway Traffic Safety Administration (NHTSA) has proposed a new rule that would supersede its August decision on a formula for vehicle identification numbers (VINs). In response to a flurry of protests, NHTSA said it would continue to rely on a check digit to verify the VIN's accuracy, but proposed adoption of a fixed format that "would aid in avoiding certain errors."

The new rule would answer most of the objections raised by the Insurance Institute for Highway Safety, the National Safety Council, and some insurers who had petitioned the agency to reconsider its new Federal Motor Vehicle Safety Standard (FMVSS) 115 issued in August. (See *Status Report*, Vol. 13, No. 12, Aug. 21, 1978.)

VINs are coded numbers that help manufacturers conduct defect recalls, aid in the investigation of auto thefts, and facilitate the tabulation of crash-related data.

In its proposed amendment, NHTSA said the check digit would continue to serve as the "primary method of ensuring the accuracy of the VIN." The proposed new rule would be applicable to passenger cars, multipurpose passenger vehicles, and light trucks with a gross weight rating of under 10,000 lbs. The VIN would still consist of three sections and 16 characters with an added check digit. But unlike the earlier rule which allowed many of the characters to vary in format, all but three in the proposed rule would be fixed, as either alphabetic or numeric. Additionally, NHTSA agreed to move the check digit in the sequence to harmonize with the European VIN.

VEESC, AAMVA TO OPPOSE NHTSA PROPOSAL

The Vehicle Equipment Safety Commission (VEESC) and the Association of American Motor Vehicle Administrators (AAMVA) circulated a memorandum and staff analysis critical of the proposed new rule to their members. While NHTSA's response had solved some problems for VEESC and AAMVA, they still have objections, principally the location of the check digit within the structured VIN. Both AAMVA and VEESC strongly oppose the inclusion of the check digit within the VIN sequence and would like to see it moved outside, either to the right or left of the VIN to simplify programming and manual processing for state motor vehicle departments.

In a separate response to other petitions for reconsideration, NHTSA said it would, among other things:

- Permit manufacturers of incomplete vehicles to continue assigning VINs before their vehicles reach final stage manufacturers, except for motor homes, where manufacturers are already responsible for assigning VINs.
- Remove the requirement that the VIN appear on a contrasting background.
- Extend the effective date of the standard from Jan. 1, 1980, to Sept. 1, 1980, and allow for voluntary compliance on Sept. 1, 1979. NHTSA's proposed new standard for a fixed format VIN would also be scheduled to go into effect on Sept. 1, 1980.

NHTSA did not grant petitions that would have exempted trailer manufacturers from assigning VINs.

Comments on the proposed new rule are due by Dec. 11, 1978, and should be directed to Docket No. 1-22, Notice 7, Room 5108, Nassif Bldg., 400 Seventh St., S.W., Washington, D.C. 20590.

Study Supplies Fresh Evidence Of Helmet Effectiveness

Helmeted motorcyclists in crashes received 23 percent fewer head injuries than those who wore no helmets. The 60 percent of the crash-involved motorcyclists who were helmetless accounted for 85 percent of the deaths, whereas the 40 percent who were wearing helmets accounted for only 15 percent of the deaths.

These were key findings of a study, sponsored by the National Highway Traffic Safety Administration (NHTSA), of 900 motorcycle crashes in the Los Angeles area during the past 30 months. The study, directed by Harry Hurt of the University of Southern California, was designed to determine the cause of motorcycle crashes and the causes and severity of injuries and to suggest ways to reduce the human and property losses involved.

Part of the study was a series of interviews with motorcyclists involved in crashes, which showed that, in the opinion of the majority of the respondents, helmets did not limit hearing or vision in motorcycle operation. In the same survey, the helmetless group was asked why they wore no headgear. Thirty-eight percent answered that they did not expect to be involved in crashes, 26 percent said they wore no helmets because of inconvenience, and 15 percent said simply that they did not have helmets with them. (Helmet use is not required in California.)

Fifty-one percent of the crashes investigated were caused by motorists who said they either did not see the motorcyclist or did not see the rider until it was too late. A motor vehicle turning left into the path of a motorcyclist was involved in 45 percent of all crashes. (California does not require daytime use of headlights on motorcycles.)

Other preliminary findings on motorcyclists involved in crashes were:

- More than half of the drivers had less than six months experience with the particular motorcycle involved in the accident, although the overall motorcycle-riding experience of that group was more than three years.
- Motorcyclist alcohol consumption was involved in 12 percent of all studied crashes and in about 53 percent of the fatal crashes.
- Over 50 percent of the motorcyclists involved were between the ages of 16 and 23.
- Approximately 12 percent of the cyclists either had no license or were riding with a revoked license.
- About 4 percent of the motorcycle drivers involved were female, although women constitute only 2 percent of the cycle population.
- Sixty-two percent of the motorcycles' fuel systems were leaking after the crash.

Those interested in further information should contact Hal Paris at the NHTSA Office of Public and Consumer Affairs, Washington, D.C. 20590, telephone 202/426-9550.

Occupant Protection Standards To Be Extended To Trucks, Vans

Occupant protection required in passenger cars would be extended to drivers and passengers of light trucks, buses, and multipurpose vehicles under rulemaking proposed by the National Highway Traffic Safety Administration (NHTSA). The proposed rule changes would require combination lap and shoulder belts, safer steering assemblies, and interior padding in these vehicles to reduce crash hazards.

The proposed rulemaking would extend occupant protection standards FMVSS 201, 203, and 204 to light trucks and multipurpose vehicles such as vans. Petitions to extend the occupant safety standards were filed by the Insurance Institute for Highway Safety and the Center for Auto Safety late last year. (See *Status Report*, Vol. 12, No. 18, Dec. 23, 1977.)

Under the proposal, lap and shoulder belts would be required for the front outboard seating positions. Currently, lap and shoulder belts are standard equipment in Ford and Volkswagen vans, while General Motors and Chrysler offer them as options, a NHTSA spokesman said.

FMVSS 201 would require padding on arm rests, seat backs, dashboards, and sun visors. Standard 203 requires energy-absorbing steering assemblies to meet a 15 mph frontal crash test. Under standard 204, the steering column may not move to the rear more than five inches in a 30 mph frontal impact.

A SPIRALING DEATH RATE

The boom in light truck and van sales has resulted in an 80 percent increase in their numbers since 1968, NHTSA noted, contrasted to a 32 percent increase in the number of cars on the road. The increase has resulted in a spiraling death rate, NHTSA said. Between 1975 and 1977, the Fatal Accident Reporting System shows that occupant fatalities in multipurpose vans and light trucks have increased 25 percent, compared to a 4 percent increase in occupant fatalities for autos.

The proposed rules would add an average of only \$10 to \$20 to the cost of a new light truck or van, NHTSA said, since many vehicles already meet the standards, at least in part. Moreover, design approaches to meet such standards are available. For example, Volkswagen has commented that "even in vans with limited frontal structure and steep steering column mounting angles," there are designs available that would comply with the new steering column rule, NHTSA said.

The agency also noted that it "intends to propose additional rulemaking" to eliminate other light truck and van exemptions. In its Five Year Plan for rulemaking published in March this year, the safety agency said it expects to extend the side intrusion standard, FMVSS 214, and FMVSS 208, which requires passive restraint protection to light trucks and multipurpose vehicles. (See *Status Report*, Vol. 13, No. 4, March 23, 1978.)

OCCUPANT SAFETY STANDARDS REDUCE SEVERE AND FATAL INJURIES IN CARS

"The accident experience of passenger cars complying with standards Nos. 201, 203, and 204 continues to show that those standards have substantially reduced occupant injuries," NHTSA asserted. An analysis conducted by the agency showed that standard 201 had reduced "severe to fatal occupant injuries . . . by approximately 23 percent," contributing to an overall reduction in severe to fatal injuries by 5 percent.

In a similar comparison, the study showed that standards 203 and 204 reduced steering assembly injuries by an average of 14 percent for an overall reduction of severe to fatal driver injuries of 3 percent, the agency said in its notice.

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The proposed effective date for the extension of FMVSS 201 to light trucks and multipurpose vehicles is Sept. 1, 1980, and no later than Sept. 1, 1981, for extension of FMVSS 203 and 204. Comments should be submitted by Feb. 7, 1979, to Docket No. 78-16, Notice 1, National Highway Traffic Safety Administration, Room 5108, 400 Seventh St., S.W., Washington, D.C. 20590.

GM Recalls Chevettes For Fuel-Tank Modifications

General Motors has announced a recall of all 1976 and 1977 Chevettes following the release of new evidence that the subcompact's 1977 model fails to comply with a federal safety standard adopted to reduce fuel leakage and the associated risk of fire in rear-end collisions.

Some 133,000 Chevettes produced in model year 1977 and 187,000 Chevettes produced in model year 1976 will be recalled for fuel system modifications, GM said. Federal requirements governing fuel system integrity in rear-end collisions – which are contained in Federal Motor Vehicle Safety Standard (FMVSS) 301 – did not take effect until model year 1977. But GM said it will recall the 1976 models because they have the same fuel system design as that of the 1977 Chevette.

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NHTSA Conducts Additional Fuel-Tank Tests

NHTSA has crashed two models of the 1973 Toyota in preliminary tests to determine whether they have a fuel system defect that poses a fire hazard in rear-end collisions, an agency official told *Status Report*.

In addition, a NHTSA spokesman said an agency task force has identified other vehicles which preliminary research indicates may have fuel system defects. Task force findings naming the other vehicles will probably be released in the next few weeks, the spokesman said.

Results of the Toyota tests – which the NHTSA spokesman said were prompted by crash test information submitted by the Insurance Institute for Highway Safety (IIHS) – are not yet available. A 1973 Corona and a 1973 Corolla were impacted from the rear in the NHTSA tests, which will be used to help determine whether a formal defect investigation of the vehicles should be opened.

In a letter to NHTSA in May, IIHS President William Haddon, Jr., M.D., reminded the agency that in Institute crash tests conducted in 1973 and reported to the agency that year, a stationary 1973 Toyota Corona caught fire an instant after it was struck from the rear by another passenger car traveling at a moderate speed (see *Status Report*, Vol. 13, No. 11, Aug. 3, 1978). The design of the Corona allowed the injection of “lethal quantities of burning gasoline” into its passenger compartment, Haddon said. He also noted a report received by the Institute of a real-world crash in which a young girl riding in a Toyota Corona suffered severe burns. The Toyota, a 1969 model, was struck from the rear, according to the report.

The 1976-1977 Chevettes join the Ford Motor Company's 1971-1976 Pinto sedans and 1975-1976 Mercury Bobcat sedans as subcompacts which have been recalled this year after NHTSA crash tests indicated their vulnerability to fuel leakage and fire in rear-end collisions. Concern over fuel system failures and the resulting fire risk led NHTSA to announce in July a wide-ranging investigation into fuel-tank problems, which it said may lead to additional defect recalls and tougher federal safety standards (see *Status Report*, Vol. 13, No. 11, Aug. 3, 1978). A NHTSA spokesman told *Status Report* that the agency is continuing its investigation of other models, and that preliminary findings will probably be released in several weeks (see box).

The voluntary recall of the Chevettes follows a preliminary finding of their noncompliance with FMVSS 301 made by NHTSA in May. According to NHTSA, 1977 Chevettes spilled fuel in excess of the standard's requirements in two of five crash tests conducted by the agency. Under the standard, fuel spillage must not exceed certain levels after a vehicle is struck from the rear by a barrier traveling 30 mph. (See *Status Report*, Vol. 9, No. 8, April 16, 1974.)

NEW TESTS CONFIRM LEAKAGE

GM contested the finding at a public meeting conducted by NHTSA in June, arguing that faulty testing procedures were used in the two trials the agency said the 1977 Chevette failed. (See *Status Report*, Vol. 13, No. 9, June 29, 1978.) But in recent additional compliance tests preceding the GM recall announcement, NHTSA reported that two more 1977 Chevettes leaked fuel in excess of the standard's requirements.

In making its announcement, GM said it is recalling the vehicles not because they are defective, but "only because . . . NHTSA has found the 1977 Chevette fuel system technically may not comply" with the federal standard. The company said it "continues to survey its accident files and still has found no reports of fires due to impacts involving Chevette gas tanks."

NHTSA Administrator Joan Claybrook described her agency as "very pleased" with the GM decision, which she added is the "proper one to protect the safety of the motoring public."

GM said the modifications will involve "strapping plastic shields around the lower front corners of the fuel tank and installing larger washers on certain rear suspension parts."

Quoted Without Comment

" . . . It would be improper to find a vehicle out of compliance on the basis of a test conducted at a performance level in excess of the requirement of the standard, *no matter how slight* It is clear that the actual barrier speed could have been at least .19 mph over or under the reported test speed of 29.93 mph." (Emphasis added. The standard requires the vehicle to pass a 30 mph rear impact test.)

A statement by General Motors
in contesting the NHTSA "Initial Determination"
that its testing of the 1977 Chevette found the vehicle
in noncompliance with the fuel spillage requirements of FMVSS 301.

Ford Asks Dismissal Of Pinto Fire Criminal Charges

The Ford Motor Co. has asked for dismissal of criminal indictments brought by an Elkhart County (Indiana) grand jury in the deaths of three teenagers who died in a flaming Pinto crash in August. The National Highway Traffic Safety Administration (NHTSA) has investigated the crash and blamed it on inattention by the driver of a van that crashed into the rear of the Pinto. A contributing cause, NHTSA reported, could have been the absence of roadway shoulders to allow emergency stopping.

The grand jury had brought the indictments on the grounds that Ford “did recklessly design and manufacture” the car in a manner likely to cause it to “flame and burn upon rear-end impact.” In its response, Ford argued that by filing the criminal charges the state “seeks to transform an incident that traditionally is judged under the civil law into a basis for criminal prosecution.”

Ford “vigorously” denied any improper act contributing to the Pinto crash deaths, but said even if it had acted improperly the civil law “is more than adequate” to deal with the matter.

“NHTSA engineers conclude that while the crash was a severe one, it represents another example of a Pinto crash and fire which has resulted in a recall of all 1971-1976 Pintos except station wagons,” NHTSA announced. “The filler pipe was pulled out of the tank, and the fuel tank was penetrated by parts of the Pinto’s understructure. These are considered typical of the Pinto fuel tank problem.”

Investigators found that the van struck the Pinto at a precrash velocity difference of 33 to 40 mph and overrode the Pinto’s rear. Gasoline from the ruptured tank entered the passenger compartment, feeding the blaze resulting from the crash, said NHTSA.

After acting under federal pressure to recall the Pintos and 1975-1976 Mercury Bobcat sedans (see *Status Report*, Vol. 13, No. 8, June 15, 1978), Ford has begun notifying owners to take their vehicles into dealerships for modifications to lessen the fire hazard. The modifications include installation of plastic shields between the tanks and the rear axles, and longer filler tubes for the fuel tanks (see *Status Report*, Vol. 13, No. 13, Sept. 20, 1978).

IIHS Sees Only Modest Effort To Curb Crash Damage

The Department of Transportation (DOT) has made only a modest effort to carry out a federal law directing it to set standards to reduce the often-extensive property damage sustained by new cars in minor crashes, the Insurance Institute for Highway Safety (IIHS) has testified.

Meanwhile, the costs of repairing low-speed crash damage are skyrocketing, the Institute has reported.

Speaking in Chicago at hearings by the House Subcommittee on Consumer Protection and Finance on problems associated with automobile repair, Ben Kelley, IIHS senior vice president, said the Institute’s crash tests have consistently shown since 1969 that the designs of many new cars result in their sustaining “unacceptably high levels of damage” in very low-speed crashes.

Institute data submitted to the committee indicated that the cost of parts to repair such damage has increased dramatically since the research group’s early low-speed crash tests. IIHS noted, for example, that the cost of a front fender for a 1971 Plymouth Fury rose from \$70.35 in the fall of 1970 to \$156.39 in late 1978 – a 122 percent increase – and the cost of the corresponding part for a 1971 Chevrolet Vega rose during the same period from \$39.95 to \$83.50 – an increase of 109 percent.

Bumpers have been developed which are capable of eliminating most, if not all, damage in front and rear low-speed crashes, Kelley said. His testimony included a film of recent tests funded by the DOT’s *Status Report*

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National Highway Traffic Safety Administration (NHTSA), in which a research vehicle was repeatedly crashed into the side of a 1975 Plymouth Fury at speeds ranging from about 4 mph to just over 8 mph. According to the contractor's report, there was no damage to the research vehicle in any of the tests, and damage to the Fury was extremely slight, Kelley reported.

"NHTSA is to be commended for promoting research that is resulting in the kind of low-speed crash performance shown in these films," Kelley said. "But ironically, the same agency's present economic bumper standard does less than is required to transfer such technology from the test track to the new-car show room."

"Unless the agency improves that standard in ways that assure for consumers that their new cars incorporate modern damage-resisting technologies, it will be failing to meet the intent" of the 1972 Motor Vehicle Information and Cost Savings Act, Kelley testified.

The bumper standard – Phase I of Part 581 – became effective Sept. 1, 1978, and requires bumpers to protect new cars from damage in a direct 5 mph collision into a concrete barrier, and in tests in which a weighted pendulum is swung at 5 mph squarely into the cars' bumpers, and at 3 mph into the corners of the bumpers. Damage to the bumpers or their fasteners in the tests is not limited until model year 1980, when under Phase II of the standard they will be allowed to sustain only minimal damage.

UPDATE . . .

MULTIPIECE WHEELS: Reports of 39 more violent separations of multipiece wheels have been filed with NHTSA by the Insurance Institute for Highway Safety. The reports, involving 10 deaths and 29 injuries, further documented petitions filed earlier asking NHTSA for a defect investigation of all multipiece wheels in use (see *Status Report*, Vol. 13, No. 9, June 29, 1978) and for rulemaking that would, in effect, ban manufacture of the hazardous truck, bus, and camper wheels (see *Status Report*, Vol. 13, No. 14, Oct. 11, 1978).

The additional reports were supplied primarily by workmen's compensation boards in Florida, Kentucky, and North Dakota. They indicated the pervasive nature of the multipiece wheel problems because in addition to reported separations at roadsides and in vehicle service centers, they included three incidents involving mining vehicles at coal-mining facilities.

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BELT LAW EFFECTS DROP: Daytime belt use by front-seat passengers in Vancouver has declined since the initial weeks following the enactment of a belt-use law in British Columbia, the Insurance Institute for Highway Safety has reported. Observed belt-use levels climbed from 32 percent before the law was enacted and peaked at 79 percent in the first week of the law. Belt use fell to 67 percent six months later and 66 percent in nine months, Institute researchers said, indicating that a "daytime driver use rate of 2 in 3 may be sustainable."

The decline was less severe than in Ontario, where belt use declined to less than 50 percent seven months after the enactment of a similar belt-use law. (See *Status Report*, Vol. 12, No. 7, May 9, 1977.) The researchers noted that belt-use laws have resulted in moderate reductions in the occupant death rate in some countries but that an even greater potential for reducing deaths and injuries lies with automatic ("passive") restraint systems. "Observed Daytime Seat Belt Use in Vancouver Before and After the British Columbia Belt Use Law," by Allan F. Williams, Ph.D., and Leon S. Robertson, Ph.D., may be obtained from the Insurance Institute for Highway Safety, 600 Watergate, Washington, D.C. 20037.

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the highway loss reduction

Status Report

Watergate 600 • Washington, D.C. 20037 • 202/333-0770

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ISSN 0018-988X

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