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House Study Supports 5 MPH Bumper Standard

Firm support for the federal 5 mph property damage bumper standard has been expressed in an extensive Congressional study of avoidable auto repair costs.

The study, prepared by the staff of the House Commerce Committee's Consumer Protection and Finance subcommittee, reported that avoidable auto repair costs total some $20 billion per year. An estimated $2 billion of that figure goes for damage caused in crashes resulting from undermaintenance or faulty repairs, it said.

Among the approaches advocated by the staff to help curb avoidable repair costs is an expedited federal effort to provide consumers with information on the damageability and ease of repair of various cars. In addition, it urged that federal efforts be speeded to rate vehicles on their ability to protect occupants in crashes.

The study was begun under Rep. Bob Eckhardt (D.-Tex.), late in his tenure as subcommittee chairman. It was completed under current subcommittee chairman Rep. James Scheuer (D.-N.Y.), and was prepared by John P. McLaughlin, Dr. Milton D. Lower, and Dale Bechtel.

Crash repairs cost consumers $8 to $10 billion per year, and, in addition, "large consumer losses in the value of cars accumulate as damage in countless low-speed collisions goes unrepaired," the study said. "Crash costs have risen far more rapidly than prices or costs for other automobile-related goods and services," it noted.

BUMPER STANDARD 'PROMISING'

"The most promising means of reducing avoidable costs in crash repair under existing legislation is the part 581 bumper standard," the subcommittee staff concluded. Under the standard, which took effect with 1979 model cars after years of delay, bumpers are required to protect vehicles

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New Cars Tested For Crashworthiness Ratings

Consumers have been given their first report on the results of a new Department of Transportation crash test program that rates the protection offered to *belted* occupants by recent automobile models at crash speeds exceeding those set by the federal motor vehicle safety standards.

Preliminary results of the crash tests – conducted at speeds of 35 mph in contrast to the federal standard requirement of 30 mph – showed that some manufacturers are building small, economical cars that provide a relatively high level of passenger protection, Transportation Secretary Neil Goldschmidt said at a press briefing.

But overall, in both large and small cars tested, had they been occupied by real people instead of dummies, more than half the impacts could have resulted in fatalities.

Goldschmidt said he was "particularly proud" that among small cars, American makes "did better

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House Study Supports 5 MPH Bumper Standard (Cont'd from page 1)

from any damage in direct 5 mph front-and-rear barrier impacts, and in 3 mph pendulum impacts of vehicle corners. Bumper damage on 1979 models is unrestricted, but on 1980 model cars, only minimal damage in the tests is permitted.

In response to a proposal by Sen. Robert Byrd (D.-W.Va.), the Senate has voted to roll back test speeds under the standard to 2.5 mph. In support of the move, Byrd argued that a 2.5 mph standard would yield consumer net benefits, and that the 5 mph standard is not cost effective because it leads to the use of heavier, less fuel-efficient bumpers. (See *Status Report*, Vol. 14, No. 11, July 13, 1979.)

However, the subcommittee staff's analysis indicates that the 5 mph standard has "greatly reduced" low-speed damage costs, and dismisses the "common assumption that crash protection depends upon heavy (and more costly) bumpers."

INSTITUTE CRASH TESTS CITED

In conducting a limited study of the effectiveness of the 5 mph standard, the staff used Insurance Institute for Highway Safety (IIHS) barrier crash test results to compare repair costs for selected cars with 1971 prestandard bumpers and those with 1976 bumpers – which it said "came close to meeting the present standard." Repair costs were substantially lower for the cars with 1976 model bumpers. The staff noted that because of the limited nature of the crash tests the reduced costs "cannot be translated directly into 'real-world savings' over the lifetime of the car." But it emphasized, "These are, nonetheless, the best crash-test data available for assessing the response of manufacturers to the bumper standard, and they yield a strong presumption that 'real-world' avoidable costs have been greatly reduced over the entire range of low-speed collisions."

The staff also analyzed the performance of 21 different 1978 model cars in IIHS crash tests. It found that "with few exceptions, the lighter the bumper system in relation to the weight of the car, the lower the cost of repairs in relation to the car's value." The "trend of recent technological changes in bumper designs has been to make them lighter and more cost-effective," it said.

The study noted that the subcommittee has received much evidence that "existing prototype bumper systems offer prospects of substantial further improvements in damage protection, as well as improved safety and other benefits, at low cost." It said the potential net benefits of these and other choices of technology should be considered in any assessment of current bumper designs, "which are the choice of particular manufacturers and which may not incorporate the best and most cost-effective technology."

RATINGS FOR CONSUMERS URGED

In other issues, the subcommittee staff noted that in assessing long-term operating costs, the car buyer can check EPA mileage ratings, but has "little information on the maintenance and repair costs of the vehicle or its crash worthiness." It thus recommended that the National Highway Traffic Safety Administration (NHTSA) be directed to assign a much higher priority to providing consumers with ratings of these vehicle aspects.

In estimating avoidable auto repair costs at $20 billion per year, the staff was careful to avoid the notion of a consumer "rip off." It is the "mechanic's inability to diagnose and repair cars properly, and not fraud, that is the principal cause of the auto repair problem at the shop level," it said. Recommendations for curbing avoidable repair costs included those which addressed the need for expanded and improved mechanic training programs; dispute resolution mechanisms for consumer complaints; improved warranty repairs; programs to diagnose needed repairs and to assess their quality once completed; and certain new NHTSA safety standards.

These include requirements for the performance of replacement brake shoes and pads, low tire-inflation warning devices, and ball joint wear indicators. The study also recommended that NHTSA be encouraged to explore the "demodularization" of exhaust components to make parts replacement less costly.

The study is entitled "Automobile Repairs: Avoidable Costs," Staff Report, Committee on Interstate and Foreign Commerce, Subcommittee on Consumer Protection and Finance, House of Representatives, U. S. Government Printing Office, Washington: 1979.

Study Predicts Accelerating Crash Toll Of Moped Riders

By 1984, as many as 1,200 moped riders will be killed annually in highway crashes, a soon-to-be-released report, sponsored by the National Highway Traffic Safety Administration (NHTSA), predicts.

The number of mopeds using U. S. highways is forecast to swell from the current half million to 2.5 million by 1984. The study further anticipates that between 1.5 and 4 percent of all mopeds will be involved in crashes in any given year. Eleven percent of those crashes are expected to result in serious injury to the moped rider, and 1.2 percent will be fatal.

"We are very much concerned about the study's projections," NHTSA Administrator Joan Claybrook said. "The energy situation makes it likely that greater numbers of these vehicles will be used for local transportation, because they are more economical to operate than cars. Steps must be taken to develop safety programs for moped users and other drivers who share the road with them.

"First, all moped users should be advised to wear a safety helmet," Claybrook continued, "preferably a motorcycle helmet, and to wear brightly colored clothing to offset the tendency of motorists to overlook two-wheeled vehicles. Second, since most states combine moped accident statistics with those involving other two-wheeled vehicles, they should change their accident recording systems so that moped accidents can be identified separately."

This moped study, conducted by the Highway Safety Research Center at the University of North Carolina, will be Volume II of "An Analysis of Mopeds as a Potential Safety Problem in the United States." (See *Status Report*, Vol. 14, No. 12, Aug. 8, 1979, for information on Volume I.)

GM Pays Record Fine In Chevette Fuel Tank Case

In an unpublicized settlement, the General Motors Corp. has agreed to pay a record $250,000 fine levied by the National Highway Traffic Safety Administration (NHTSA) for failure to comply with the agency's fuel system integrity standard, FMVSS 301. The settlement was the largest ever sought by the agency through informal procedures.

The NHTSA record reveals that the fine was assessed following the investigation and recall of 187,000 of the 1976 and 133,000 of the 1977 model Chevrolet Chevettes equipped with fuel tanks that failed to meet the standard's limits for fuel spillage.

The investigation and crash test program began with the discovery of the fuel tank problem by Dynamic Science in routine compliance tests during March 1977. General Motors vigorously disputed the test procedures and findings, but in November of last year sent out a recall notice to affected Chevette owners. (See *Status Report*, Vol. 13, No. 16, Nov. 17, 1978.)

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GM Pays Record Fine In Chevette Fuel Tank Case *(Cont'd from page 3)*

According to a memo from attorneys for the Office of Vehicle Safety/Compliance to Joan Claybrook, NHTSA's administrator, the large sum "is justified through weighing the statutory criteria, gravity of the offense, and corporate size. Here, the world's largest manufacturer deliberately risked the use of an obviously marginal design in a high volume model for commercial reasons.

"It also seems apparent GM delayed resolution of the case as a matter of corporate policy until the commercial success of the Chevette was assured, because of its importance to the company's 1978 and 1979 model year corporate average fuel economy figures," the memo continued.

In its defense, GM said the sum "seems totally inappropriate in this case." The company cited the Chevette's "excellent field performance in actual rear-end collisions." To date, GM claimed, there has been "not a single fuel-fed fire."

Although the company protested the fine in several letters to NHTSA, the agency remained firm and on August 17, NHTSA received a check for $250,000 from GM.

New Cars Tested For Crashworthiness Ratings *(Cont'd from page 1)*

than their foreign counterparts." Among those he said performed especially well were the 1980 Chevrolet Citation and the 1979 Chevrolet Chevette, Plymouth Horizon, and Ford Mustang. (See table.)

(Recently, the Highway Loss Data Institute reported that among 1978 car models, small imports had the worst injury claim frequencies. The DOT results are based on injury severity to *belted* occupants in 35 mph crash tests of 1979-80 models, while the HLDI data are based on insurance claim frequencies for 1977 and 1978 models whose occupants were, for the most part, *unbelted*. See *Status Report*, Vol. 14, No. 15, Oct. 9, 1979.)

Accompanying Goldschmidt at the briefing was National Highway Traffic Safety Administration (NHTSA) head Joan Claybrook, whose agency sponsored the testing. Claybrook told reporters that the new X-body Citation did remarkably well, and just barely missed "passing" additional crash tests at 40 mph. "Failure" of a portion of the tests meant that an occupant could have died in such a crash, she said.

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Some Belt Systems Inadequate

Both NHTSA Administrator Joan Claybrook and Transportation Secretary Neil Goldschmidt have emphasized that the dummies used in the 35 mph crash tests were belted, and in most cases, the belt systems worked well. "However," Goldschmidt said, "much of the protection is lost if occupants fail to wear the safety belts. Moreover, in a number of tests where the vehicle structures performed well, the vehicle failed the test because the belt system was insufficient to prevent the occupant from striking the dash or steering wheel and fatally injuring them."

Goldschmidt indicated that the problem with those belt systems was excessive belt stretch rather than belts pulling away from their anchorages. However, the agency was unwilling to disclose which systems were "insufficient" since the statement was based on visual observations and must be confirmed by data to be supplied in the contractors' final reports.

1979 NEW CAR ASSESSMENT PROGRAM

		35 MPH FRONTAL IMPACT TESTS				35 MPH REAR IMPACT TEST
	TEST CAR (MAKE/MODEL)	OCCUPANT PROTECTION	WINDSHIELD RETENTION	WINDSHIELD INTRUSION	FUEL LEAKAGE	FUEL LEAKAGE
MINI COMPACTS (up to 2,150 lbs.)	Chevrolet Chevette	Pass	Fail	Pass	Pass	Pass
	Datsun 210	Fail	Pass	Pass	Pass	Pass
	Volkswagen Rabbit	Fail	Pass	Pass	Pass	Fail
	Plymouth Champ/ Dodge Colt*	Fail	Pass	Pass	Pass	To be tested
SUBCOMPACTS (2,151-2,650 lbs.)	Mercury Bobcat/ Ford Pinto*	Fail	Pass	Pass	Pass	Pass
	Toyota Celica	Fail	Pass	Pass	Pass	Pass
	Plymouth Horizon	Pass	Pass	Pass	Pass	Pass
COMPACTS/ INTERMEDIATES (2,651-3,350 lbs.)	Oldsmobile Cutlass Supreme/Pontiac Grand Prix*	Pass	Fail	Pass	Pass	Fail
	Pontiac Firebird/ Chevrolet Camaro*	Fail	Pass	Pass	Pass	Fail
	Chevrolet Citation	Pass	Pass	Pass	Pass	Pass
	Ford Mustang	Pass	Pass	Pass	Pass	To be tested
	Plymouth Volare/ Dodge Aspen*	Fail	Pass	Pass	Pass	Pass
	Ford Fairmont/ Mercury Zephyr*	Fail	Pass	Pass	Pass	To be tested
STANDARD/ FULL SIZE (3,351-4,050 lbs.)	Chevrolet Impala/ Pontiac Catalina*	Fail	Pass	Pass	Pass	Pass
	Oldsmobile 98/ Buick Electra	Fail	Pass	Pass	Pass	Fail
	Buick Riviera	Pass	Pass	Pass	Pass	To be tested
	Mercury Marquis/ Ford LTD Landau*	Fail	Pass	Pass	Pass	To be tested
	Dodge Magnum/ Chrysler Cordoba*	Pass	Pass	Pass	Pass	Pass
	Chrysler LeBaron/ Dodge Diplomat*	Fail	Pass	Pass	Pass	Fail
	Dodge St.Regis/ Chrysler Newport*	Fail	Pass	Pass	Pass	To be tested

*Car tested in the rear crash.

New Cars Tested For Crashworthiness Ratings *(Cont'd from page 4)*

NHTSA began the test program under Title II of the Motor Vehicle Information and Cost Savings Act, which requires the agency to develop and publish comparative ratings for cars by make and model, showing their crashworthiness, damageability, and ease of diagnosis and repair.

"Ideally," Claybrook said, "a crashworthiness rating system would not only give the consumer more vital information about new cars in the marketplace, but also would generate competition among the manufacturers to produce cars which are safer, more resistant to damage, and less costly to service and repair."

So far, the tests have been conducted on about 20 cars with 25 more to be tested. Those include the Toyota Corolla, Honda Civic, Ford Fiesta, Dodge Colt, Oldsmobile Cutlass Coupe, Chevrolet Malibu and Monza, Ford Granada, AMC Concord, Volvo 244 DL, Ford Zephyr, Pontiac Sunbird, Mercury Monarch, Ford LTD II, Lincoln, Buick Riviera, Thunderbird, and Chrysler Newport.

The 35 mph tests, at 5 mph above minimum standards set by the Department of Transportation, measure how well the cars:

- Provide overall manual or automatic occupant protection under FMVSS 208.
- Retain windshields to keep occupants in the passenger compartment during a crash.
- Prevent intrusion of vehicle parts, such as the hood, through the windshield into the occupant compartment.
- Prevent the rupture of a fuel tank or leakage from the fuel line during a crash.

At the press conference, Claybrook released a letter transmitting the test results to auto manufacturers, requesting their comments and any additional information they might have on product performance in crashes exceeding federal minimum standards.

PROGRAM FUNDS MAY BE CUT

Both Claybrook and Goldschmidt emphasized that the test program is in its infancy. The results presumably will be considered by the Senate as it determines appropriations for the Transportation Department. Although there is a mandate for the program under authorizing and earlier appropriations legislation, the House Appropriations Committee voted this year to eliminate it as an economy measure. The committee also was critical of previous adminstrations' failure to establish a meaningful rating system.

FHWA Moves To End Construction Zone Hazards

An "alarming" number of crash deaths and injuries have occurred in recent months on normally divided highways where one roadway is converted to a two-way operation during construction work, the Federal Highway Administration (FHWA) has reported. Accordingly, the agency has issued an emergency rule to bar these zones on new projects were possible, and to encourage their elimination on existing projects.

FHWA officials "have received continuing evidence of severe head-on accidents on divided highways which have been reduced to two-lane, two-way operations because of construction or maintenance work," the agency said in a notice announcing the rule. The FHWA said that in the 16 months preceding the notice – issued September 12 – it received reports of 17 major crashes in the work zones. These resulted in 44 deaths and 29 injuries.

Under the emergency rule, which applies to projects using federal funds, two-way traffic on one roadway of a normally divided highway is to be permitted only when other traffic control measures – such as one-way operations or detours – are not feasible. Where two-way traffic must be maintained, the rule specifies that traffic must be separated throughout the length of the operation by using either concrete "safety shape" barriers (or some other actual barrier approved by the FHWA), or drums, cones, or vertical panels. In transition zones, only concrete barriers may be used, the FHWA said. Exceptions to these provisions may be granted only when it has been shown that the use of the barriers or the lane marking devices is not "feasible or practical," the notice said.

Projects approved by the FHWA before the September 17 effective date of the rule are not affected by it. However, the agency said the states will be urged to revise existing projects to meet its provisions. The states "are also encouraged to apply these requirements to non-Federal-aid projects," the agency said.

FHWA is inviting comments on the rule. These will be considered in evaluating its effectiveness and in determining the need for future revisions. They should be sent to FHWA Docket No. 79-31, Federal Highway Administration, Room 4205, HCC-10, 400 Seventh Street S. W., Washington, D. C. 20590, and must arrive no later than Nov. 16, 1979.

Child Protection Meetings Scheduled In Washington

A series of regional workshops on child passenger protection will culminate early in December in three days of meetings in Washington, D.C., studying the issues on a national scale.

The Washington sessions will combine a conference of leaders of child health and safety programs, researchers, government officials, and manufacturers on child restraint problems with a public meeting on ways to improve protection for children as vehicle occupants, pedestrians, or cyclists. The conference will open on December 10 at the Sheraton Park Hotel, and the public meeting will be held in the same location from 1 p.m. to 6 p.m. on December 12. The sessions are to be held under the auspices of the National Highway Traffic Safety Administration.

New federal motor vehicle safety standards on child restraints are expected to be announced within the next few weeks. Rulemaking was begun in May 1978 to amend FMVSS 213 on child restraints and FMVSS 209 on seat belt assemblies. (See *Status Report*, Vol. 13, No. 7, May 31, 1978.) The urgency of child protection was stressed in May 1979 when the House Commerce Subcomittee on Oversight and Investigation held hearings on the problem and was shown filmed results of Insurance Institute for Highway Safety crash tests that documented hazards to child passengers. (See *Status Report*, Vol. 14, No. 8, May 17, 1979.)

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