

the highway loss reduction

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Public Views Sought

NHTSA Opens Bumper Rule Review

With an invitation for public comment on a wide range of cost and other issues, the National Highway Traffic Safety Administration (NHTSA) has opened up for re-evaluation – and possible modification – its standard requiring that new-car bumpers reduce damage in low-speed crashes.

The agency's action came in the form of a "request for public comment" in an "advance notice of proposed rulemaking" – a procedure that gives the agency latitude for making future proposals to change the standard but does not require that it spell out such proposed changes at present. In fact, the NHTSA issuance contains no proposed modifications in the present Part 581 bumper standard – only a long list of questions whose answers might lead to a change. (See page 4.)

Along with its "advance notice" NHTSA also made public a number of studies whose findings, it indicated, have in part been responsible for prompting the new bumper standard evaluation. As NHTSA pointed out, it also is under a mandate, in the Department of Transportation appropriations bill passed by Congress in 1978, to "conduct studies and analysis re-evaluating to the maximum extent feasible the level

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Rulemaking Started To Curb Multipiece Rim Hazards

Rulemaking that could lead to the modification or banning of explosion-prone multipiece rims for trucks, buses, and recreational vehicles has been started by the National Highway Traffic Safety Administration (NHTSA).

In an advance notice of proposed rulemaking, NHTSA said that in response to a petition from the Insurance Institute for Highway Safety the agency is studying action against the multipiece wheel equipment that has been implicated in numerous deaths and maiming injuries. The proposed action would be the amending of Federal Motor Vehicle Safety Standard No. 120, dealing with "tire selection and rims for motor vehicles other than passenger cars." NHTSA is considering establishing new performance levels of tire and rim component retention in the standard "to prevent separation of multipiece wheels in sudden deflation and run-flat conditions." The agency also is studying a possible ban on multipiece rim manufacture.

Multipiece wheels have two or more parts, including a heavy locking ring designed to clamp over a tire and hold it in place under the pressure of inflation. But a variety of

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of bumper damage resistance which is most cost beneficial to the consumer. The Committee directed NHTSA to modify the bumper standard to reflect the results of this study.”

The new NHTSA issuance provides until April 30 for filing of public comments. (It also provides that individuals and groups wanting to participate in the comment process but financially unable to do so may apply to the agency for funding assistance.) NHTSA is restricting all comments to 15 pages in length, although necessary attachments may be added without restriction.

The “advance notice” is designated as Docket No. 73-19, Notice 25. Comments responding to it should be sent to Docket Section, NHTSA, Room 5108, 400 Seventh St., S.W., Washington, D.C. 20590.

At the end of the 60-day comment period, NHTSA has a number of options open to it, depending on its evaluation of data and comments in the docket. They include:

- Dropping the matter and leaving the standard in its present form.
- Issuing a “notice of proposed rulemaking” that would result in a standard weaker than the present one. It is likely, according to agency sources, that another 60-day comment period would be provided for such a proposal. If the agency decided to go forward with a weakened standard at the end of that time it could issue the standard to take effect immediately – that is, possibly in time to allow some modification by manufacturers of bumpers on the 1980-model cars.
- Issuing a notice of proposed rulemaking to result in a stronger standard than at present. Again a 60-day comment period probably would be provided; if the agency then decided to go forward with a stronger standard, however, it doubtless would provide at least a year’s lead time to the manufacturers.

BACKGROUND

As the agency explained in its new “advance notice,” the current bumper standard was issued in response to a mandate in the 1972 Motor Vehicle Information and Cost Savings Act. (See *Status Report*, Vol. 7, No. 19, Oct. 16, 1972.) The standard, aimed at “limiting damage to vehicle bumpers and other vehicle components in low-speed collisions,” first took effect in the current model year, during which it permits damage to bumpers but not to the remainder of the car in specified compliance tests. (See box.) In the 1980 model year the standard forbids damage to any part of the car, including all but insignificant damage to the bumpers themselves.

The standard covers only the performance of bumpers in the specified test impacts. As it must under the law, the standard leaves design decisions – including bumper weights and materials – entirely to the auto manufacturer.

An earlier NHTSA performance standard, FMVSS 215, in effect required that bumpers be able in very low-speed impact tests to protect their cars from damage to safety-related components – although the standard, written under the Traffic and Motor Vehicle Safety Act of 1966, did not address itself to reducing property damage per se. The FMVSS 215 standard was incorporated into the Part 581 bumper standard when the latter took effect this model year.

STUDIES CITED BY NHTSA

In its new call for public comment on the Part 581 bumper standard, NHTSA referred to data in three studies – one by its own staff, a second by the John Z. DeLorean Corp., and a third by Houdaille

Industries, a maker of steel bumpers. (Copies of the studies may be obtained by writing to Department of Transportation, NHTSA, General Services Division, NAD-42, 400 Seventh St., S.W., Washington, D.C. 20590.)

The studies, on which the agency asked public comment, are these:

A preliminary NHTSA study, using “parametric analyses,” projecting the costs and benefits of “the three major bumper construction materials – steel, aluminum, and soft face – at several impact speeds.”

In summing up the study, which it submitted to Congress in late January, NHTSA said its results “indicate that with any of the technologies chosen, the present performance requirements provide substantial net benefits to consumers over the lifetime of a vehicle. At the same time, it is not at all clear that the 5-mph standard results in the greatest net benefits to the consumer.”

The study itself concludes that “both 2.5 and 5.0 mph bumpers yield substantial net benefits. The net benefits of aluminum and soft face bumpers are nearly equal at both 2.5 and 5.0 mph barrier equivalent speed and the net benefits of steel systems appear significantly greater at 2.5 than at 5.0 mph.”

At both speeds, the study adds, the “net benefits of steel bumper systems are less than aluminum and soft face systems, pointing out the role that manufacturers have in determining the amount of benefits that consumers actually achieve. . . .”

A study prepared for NHTSA by DeLorean Corp., of the weights and production costs of selected bumpers chosen by manufacturers to meet FMVSS 215, the “safety” standard for low-speed impact performance that took effect starting in the 1973 model year.

The DeLorean study concludes that FMVSS 215 “resulted in a consumer out-of-pocket cost of \$26.54 and a weight increase of 54.3 pounds per vehicle over the 1972 pre-standard models. The implementation

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Bumper Test Requirements

Until the 1980 model year there is no federal standard restricting in any way the amount of damage that is allowed to automobile bumpers and their fasteners. However, under procedures specified in the Part 581 property damage bumper rule, a 1979-model car must emerge from a series of test impacts with no damage other than to its bumpers or their fasteners. The series consists of:

- Swinging a weighted pendulum with a contoured face twice at 5 mph squarely into each bumper at any impact height from 16 to 20 inches.
- Swinging the pendulum at 3 mph, once into a front corner of the vehicle and once into a rear corner, at an impact height of 20 inches; and once into the other front and rear corners at any impact height from 16 to 20 inches.
- Two direct 5 mph collisions into a concrete barrier, one testing the front bumper, the other the rear.

Starting with the 1980 models, the same tests will apply and only minimal damage will be allowed to the bumpers and their fasteners.

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of the 1974 FMVSS 215 — raising the barrier test requirement for rear bumpers from 2.5 to 5 mph — “in addition to the 1973 FMVSS 215 resulted in an accumulative consumer out-of-pocket cost of \$48.47 and a weight increase of 76.7 pounds per vehicle over the 1972 pre-standard models.”

The study also examined the bumpers of selected 1977- and 1978-model General Motors cars and found “a weight and cost reduction in the bumper system from the baseline 1973 vehicle,” believed to result from “downsizing and styling changes.” (Cont'd on page 5)

The Questions Raised About Bumpers

In NHTSA's new call for public comment on its bumper standard and how the standard may be reshaped for the future, NHTSA has raised a number of issues to which it seeks reaction. They are synopsized below:

COST-BENEFIT ISSUES

Do the NHTSA, DeLorean, and Houdaille analyses represent “the most appropriate methods” for studying bumper standards at different crash speeds and levels of damage resistance? If not, what method should be used?

What are the cost-benefit implications of current and possible advanced bumper technologies at impact speeds of 2.5, 5, and 7.5 mph?

Are there experimental or field data not now in NHTSA's bumper standard docket relating to low-speed crash frequency by speed increment, and to the effectiveness of various bumper designs under varying speed conditions?

How might more data be gathered on the real-world lifetime low-speed impact experience of motor vehicles?

What would be the effect on insurance premiums of any future modification in the bumper standard's performance levels?

POSSIBLE CHANGES IN STANDARD

How could the standard be changed to encourage the use of the most cost beneficial technology in bumper design?

Do the present standard's test procedures “and the pendulum impact test in particular” best represent the impact experience of vehicles in the real world, or would different procedures do a better job? Does the pendulum test “restrict development of

deep-foam padded bumpers which may be beneficial in pedestrian protection?”

What are the cost, benefit, and other implications of broadening the standard to include multi-purpose passenger vehicles?

OTHER ISSUES

NHTSA believes that “regardless of the materials used” in their design, bumpers meeting a “5 mph damage resistance level” will, because of their weight, increase fuel consumption by 0.1 to 0.2 miles per gallon over 2.5 mph bumpers. Could the relationships of bumper standards and weights to fuel consumption be “better quantified”? How do federal fuel economy standards fit in? At what point in their search for lighter materials will vehicle manufacturers see cost as “a controlling consideration”?

How does the bumper standard affect “various elements of the bumper supply industry,” the insurance business, and the crash repair industry, and how would changes in the standard affect them?

How should NHTSA be looking at bumper system design differences, both present and possible, “with regard to pedestrian protection capabilities” and other health and safety considerations?

How do consumers see the bumper standard, and how would they react to making it stronger or weaker?

What, if any, problems are involved in the adequacy of aluminum, steel, or urethane supplies for bumpers?

A study submitted by **Houdaille Industries**, which maintains that its ability to market steel bumpers is jeopardized by the present Part 581 standard and is seeking a rollback in the standard's impact test speed to 2.5 mph.

As NHTSA characterized the Houdaille submission, it “draws conclusions based on a study of a single type of bumper system, steel, on a single vehicle model, Chrysler's Volare/Aspen. From this limited sample, Houdaille compares the cost-effectiveness of 2.5 and 5 mph bumper systems.” NHTSA pointed out that its own results “differ in scope from those in the Houdaille report, since the agency considers a range of bumper designs and materials, including aluminum, at several design speeds.”

(The Houdaille study's failure to consider cars with any but one bumper design, as well as its failure to look at the performance of aluminum bumpers, is in contrast to the results of Insurance Institute for Highway Safety low-speed impact tests. For example, in testimony before the House Commerce Committee's consumer subcommittee in December 1978, IIHS witnesses showed films and repair cost results indicating, across a range of such impacts, not only substantial variations in the amounts of estimated damage incurred by differing makes and models, but also relatively good damage-resisting characteristics for aluminum bumpers – not only in sustaining comparably low crash-test damage but, in the case of the Plymouth Horizon, in having a replacement part cost lower than other cars tested by IIHS. See *Status Report*, Vol. 13, No. 18, Dec. 14, 1978.)

Along with soliciting public comment on bumper standard issues, NHTSA disclosed that it is “now undertaking crash testing to further quantify the comparative damage-reduction performance of different types of bumper systems at several impact speeds. Data collected on the pedestrian protection potential of various bumper materials also will be examined.”

Further, the agency “has longer-range plans to conduct a consumer survey to provide more reliable data on the likelihood of repair of bumper damage and on the frequency of collisions at various impact speeds.”

Haddon Urges Built-In Vehicle Speed Ceilings

The “socially responsible” automobile should have a reasonable, designed-in speed limit, William Haddon, Jr., M.D., president of the Insurance Institute for Highway Safety, told participants in the Conference on Basic Research Directions for Advanced Automotive Technology in Boston.

“I believe we should be responsible, sensible, and humane enough to place a conservative speed limit on *vehicles* as designed and manufactured, and not merely on their operation,” Haddon said at the meeting called by Transportation Secretary Brock Adams. “We would then be able for the first time to decide realistically that our national policy is to come as close as possible to having practical vehicles that protect their occupants from serious injury in crashes occurring throughout their entire operating speed range - an objective which, as a matter of physics and biology, cannot be achieved without a reasonable, built-in limit.”

A LIMIT CLOSE TO 55 MPH

Because of the difficulty of occupant crash-packaging problems at high speeds, as well as for reasons associated with fuel consumption, emissions, tire wear, lubricant use, and related issues, Haddon said, “I believe that it is imperative that we as a nation decide that the built-in top speeds of the vehicles about to be planned for the 1985-2000 period be lowered to a speed close to the present national speed limit. Needless to say, as an engineering matter this has been inexpensively and entirely feasible for at least a decade using approaches (for example, similar to that used in the long and very successfully sold cruise control systems) that in no way interfere with performance at lower speeds.”

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Haddon Urges Built-In Vehicle Speed Ceilings (Cont'd from page 5)

Many would benefit from the built-in speed limits, Haddon pointed out. Among these:

- Vehicle manufacturers would be relieved from the potential legal liability “of producing and selling tens of millions of vehicles designed to operate at speeds far higher than those at which their makers know they could adequately protect their occupants in the crashes which inevitably occur.”

- Highway departments “would be extricated from their present situation of having neither enough construction and repair money nor the technology (such as guard rails) able to handle adequately the countless vehicles now operating and crashing at speeds far higher than the present limit.”

- The police “would be progressively less often confronted with situations that could lead to now often lethal high-speed pursuits, and huge amounts of police manpower thus freed from watching for and chasing vehicles going at high speed could be diverted to crime control.” (All police and emergency vehicles would be exempted from the built-in speed limit.)

- The public “would profit the most, for example, in a reduction in the approximately 3,700 disproportionately young adult vehicle occupants whose spinal cords are severed or otherwise injured annually in crashes”

Haddon made his recommendations as a member of the panel on vehicle structures and materials during the two-day session convened to begin a search for a new kind of automobile for the 1990's and beyond. The meeting grew out of Secretary Adams' December call to the automobile industry to “re-invent the car.”

PROBLEMS OF PEDESTRIANS AND CYCLISTS

Citing the goal that each specific kind of vehicle-related injury should be eliminated, Haddon also dealt with problems leading to injury of pedestrians and cyclists and urged research to solve them, “especially through modifying the now unnecessarily hostile front ends of vehicles, which at present, and largely at relatively low speeds, hit and injure several hundred thousand American men, women, and children each year.”

In extending his prepared remarks, he also said he doubted if any of the audience would design the fronts of vehicles the same way if they knew that they or the members of their families were to be among those hit.

Haddon also expressed concern over problems of costly damageability to vehicles in low-speed crashes. “Surely no actually socially responsible vehicle of the end of this century – let alone during recent decades – could be draped with huge, highly delicate, lacquered expanses of hard-to-replace, flimsy sheet metal, expensively sculptured and positioned where most likely to be hit,” he said.

Government regulatory standards, starting in the late 1960's have greatly lowered deaths attributed to motor vehicles, Haddon said, and concluded: “Thus, a bridgehead already has been established by government actions taken to date to reduce death, injury, and property loss in motor vehicle crashes. To place the need for further reductions at the top of any list of priorities concerning the directions of future structures and materials for motor vehicles will build on that bridgehead, and the public will be the beneficiary.”

Copies of Haddon's presentation, “Remarks Concerning Structures and Materials,” are available from the Insurance Institute for Highway Safety, Watergate 600, Washington, D.C. 20037.

NHTSA To Study Built-In Vehicle Speed Ceilings

The National Highway Traffic Safety Administration (NHTSA) will study the feasibility of requiring that all commercial interstate vehicles be designed so they cannot exceed 57 mph under engine power, according to an agency spokesman.

The spokesman said the agency also will ask for public comment on the idea, which was proposed by the Trailways bus company. In a petition for rulemaking filed with NHTSA last spring Trailways asserted that if the proposal were adopted, “commercial vehicles would be controlled at a consistent speed, reducing highway speed differentials and hence reducing accidents.” The measure also would save fuel, the company said (see *Status Report*, Vol. 13, No. 10, July 14, 1978).

Regardless of whether rulemaking is initiated, NHTSA has indicated it will soon begin a demonstration program to test the effectiveness of road-speed governors. Agency officials have said the program will involve equipping commercial vehicles with the speed-limiting devices and comparing their safety record and fuel consumption with that of vehicles without the devices.

TRAILWAYS EQUIPPING ENTIRE FLEET

Trailways is in the process of equipping its entire 2,100-bus fleet with speed governors at a cost of \$75 per vehicle, company spokesman Lee Sneath told *Status Report*. The company estimates it will use 3 million gallons less diesel fuel per year at an annual savings of \$1 million once the job is completed.

Sneath said Trailways designed its own governors to provide for “maximum acceleration” in lower gears. The Trailways device – an air switch that is fitted into the transmission linkage – only takes effect in top gear when vehicle speed reaches 57 mph, Sneath said. In its petition to NHTSA, the company said it chose the 57 mph ceiling to allow a bus enough speed to safely pass another vehicle traveling below the nationwide 55 mph speed limit on a two-lane road.

The decision to use the governors met with some resistance from Trailways drivers, Sneath said, commenting that a bus driver “likes to think of himself as the captain of his ship and he wants total control over his vehicle.” However, some drivers have said if they hadn’t known their vehicles were equipped with the governors they wouldn’t have noticed them, Sneath said, and have praised the devices because “they no longer have to worry about the speedometer.”

Sneath rejected the idea that extra speed is needed to accelerate out of emergency situations, contending that drivers increase their chances of crashing if they accelerate.

Quoted Without Comment

There’s been a lot of moaning and groaning about the burdens of government regulation on the industry, and a lot of people say Washington is killing the business and taking the fun out of it. I don’t think so. On the contrary, I think the revolutionary changes in automotive design that the regulations have initiated are creating a great new market for our products.

*Philip Caldwell, vice chairman and president
of Ford Motor Co., at a meeting of the Detroit
Auto Dealers Association, Jan. 16, 1979*

NHTSA Prepares New Truck Braking Standard

The National Highway Traffic Safety Administration (NHTSA) has begun rulemaking to replace its controversial Federal Motor Vehicle Safety Standard (FMVSS) 121, which specifies air braking requirements for trucks and buses. The action follows a recent federal appeals court ruling that struck down a major portion of the standard.

In an advance notice of proposed rulemaking, NHTSA announced it will replace FMVSS 121 with a new air brake standard, FMVSS 130. The notice called for public comment on what should be contained in FMVSS 130, including the extent to which it should preserve remaining FMVSS 121 requirements. It also specified the legal status of trucks and trailers built while subject to the original standard.

In a decision handed down last April, the Ninth U.S. Circuit Court of Appeals ruled that NHTSA failed to adequately test the safety of wheel anti-lock systems that manufacturers said were needed to comply with certain FMVSS 121 performance requirements. Those provisions were adopted to reduce vehicle stopping distances while minimizing skidding and the resulting loss of lateral stability.

STOPPING DISTANCE INVALIDATED

To eliminate the need for the controversial anti-lock systems, the court invalidated the stopping-distance requirement for truck tractors and trailers at 60 mph (see *Status Report*, Vol. 13, No. 6, May 8, 1978). Under NHTSA's interpretation of the ruling, no FMVSS 121 requirements for buses were invalidated (see *Status Report*, Vol. 13, No. 15, Oct. 30, 1978).

In overhauling its air brake requirements, NHTSA said it plans to pursue two separate rulemaking initiatives. While the present rulemaking notice seeks public comment on consolidating "gains that have been achieved in truck and trailer braking . . . since the existing standard was first issued," a second notice, expected shortly, will "address longer range issues of braking technology," including antilock and other vehicle stability systems.

In considering changes in existing requirements, NHTSA said in its present notice that "the most important issue" is whether a new 60-mph stopping distance requirement should be adopted "to prevent depowering of brakes and to address the problem of the very long stopping distances" of certain vehicle types. Consistent with the court's ruling, the required stopping distance "would have to be achievable by technological means that do not create any hazard to the public," the agency noted.

NHTSA said its goal is to establish, for all air-braked vehicles, stopping distance requirements that would allow for various vehicle configurations. It noted, for example, that "a 60-mph stopping distance appropriate for almost any configuration might still be difficult to meet with complete stability in the case of the unloaded truck tractor," which might warrant separate requirements.

The rulemaking notice also said NHTSA must consider whether any new requirements should apply to school buses, which it said have been temporarily excluded from any stopping distance requirement.

Commenting on trucks and trailers built while subject to the original FMVSS 121 requirements, NHTSA said it does not believe they would be in non-compliance with the present FMVSS 121 if they lack "no lockup" performance or the specified 60-mph stopping distance capability."

While the agency said it would not consider it a violation of federal law for commercial facilities to "safely disconnect" an antilock system on a truck or a trailer, it recommended that antilock systems on existing vehicles be "maintained in proper working condition." Truck operators are not required to disconnect antilock systems, and should do so "only after consultation with the vehicle manufacturer," NHTSA said. It added that users "may order antilock according to their choice on new vehicles."

New Leadership Of Highway Advisory Committee Appointed

Transportation Secretary Brock Adams has appointed Sheila D. Sidles as chairperson and Oscar Edmonds vice-chairperson of the National Highway Safety Advisory Committee.

Sidles, who is executive secretary of the Iowa Consumers League and a member of the Consumers Federation of America, has been a committee member since August 1978. Edmonds, former chairman of the Memphis City Council, has served on the committee since November 1977.

The National Highway Safety Advisory Committee was established by the 1966 Highway Safety Act. Its 35 members consult with the Secretary of Transportation on matters concerning the 18 highway safety standards passed pursuant to the Act. These standards, administered by the National Highway Traffic Safety Administration and, in part, by the Federal Highway Administration, serve as guidelines for state programs relating to the highway environment and driver behavior. Vehicle design issues, however, are not part of the committee's responsibility.

Committee members are drawn from state and local governments, concerned public and private interest groups, and experts in the area of highway loss reduction.

Rulemaking Started To Curb Multipiece Rim Hazards (Cont'd from page 1)

conditions can cause the pressure of an inflated tire to cause the locking ring to leave the wheel in an unpredictable, extremely violent explosion. This can happen when the tire is being serviced in the shop or in normal operation on the road, and the locking ring may be hurled at high speeds into anyone, or anything, in its path.

Unlike the multipiece rim, single-piece drop-center wheels – used on passenger cars and available for most sizes of heavier vehicles – have no detachable locking ring and pose no such hazard.

INSTITUTE DOCUMENTS THE DANGERS

“The inherent unsafe design of multipiece wheels has long been known and recognized by those in the tire service and repair industry,” the Institute said in its petition for rulemaking filed Oct. 2, 1978. To document the dangers, the Institute has filed reports on 241 known cases of explosive separation of multipiece wheels. These have resulted in 46 deaths and 166 serious injuries.

In its notice of proposed rulemaking NHTSA said that at least 439 explosive separations since 1957 have been reported to the agency. Of these, 120 have been reported in the past five years. The reports include 71 incidents from which one or more deaths have resulted, and 234 separations resulting in serious injuries “including the loss of one or both eyes, head damage, and face disfigurement.” Of the reported explosive separations, 96 cases have been identified as occurring in vehicles in service and 197 cases were identified as happening during tire repair and maintenance operations.

NHTSA had previously been involved in the multipiece wheel problems when it conducted two defect investigations involving the RH5 and the K-type rims. Evidence at that time indicated 78 explosive separations of RH5 rims and 51 cases involving K-type rims. After investigations, the agency concluded that “the problem resulted primarily from a lack of information among tire repair shop personnel concerning the proper handling of multipiece rims while changing the tires mounted on these rims and the necessary safety precautions to be followed while handling the rims.”

Rulemaking Started To Curb Multipiece Rim Hazards (Cont'd from page 9)

Out of these investigations, NHTSA said, came an “apparent commitment” from each of four manufacturers involved to stop production of the rims. NHTSA also distributed safety posters on proper multipiece rim handling to tire repair shops, issued a public warning on the dangers, and recommended to the Occupational Safety and Health Administration (OSHA) that a shop safety standard be issued, establishing requirements for handling multipiece rims. The defect investigations were closed March 8, 1974.

“Since those cases were closed,” NHTSA said, “information has come to the attention of the agency which indicates that the steps taken by NHTSA before closing the cases have not had the desired effectiveness in reducing the risks of serious injury and death from the explosive separations of multipiece rims. There are indications that RH5 and K-type rims continue to be produced, although apparently in smaller numbers. Although OSHA is considering this matter, it has not yet issued a standard for shop handling of these rims. Furthermore, it is not clear to this agency that the issuance of a standard by OSHA would with certainty solve the problem.”

DEFECT INVESTIGATIONS REOPENED

As a result of an earlier Institute petition filed last June asking for a defect investigation of all multipiece truck wheels and rims, NHTSA reopened the RH5 and K-type investigations and promised, “We will also closely monitor any reports involving the explosive disassembly of other multipiece wheel makes so that appropriate action can be taken.”

NHTSA has solicited comments on the rulemaking proposal (see box) and has set a June 5 deadline for the filings. Comments should refer to Docket No. 71-19 and be submitted to Docket Section, Room 5108, National Highway Traffic Safety Administration, 400 Seventh St. S.W., Washington, D.C. 20590.

UPDATE . . .

DELAYED UPGRADING OF STANDARD CRITICIZED: In a letter to the National Highway Traffic Safety Administration (NHTSA), the Insurance Institute for Highway Safety has criticized a delay in rulemaking on improved test procedures for energy-absorbing steering assemblies under FMVSS 203. The delay was announced last November by NHTSA when the agency issued a notice of proposed rulemaking which would extend occupant safety standards 201, 203, and 204 to light trucks, buses, and multipurpose passenger vehicles. (See *Status Report*, Vol. 13, No. 16, Nov. 17, 1978.)

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VISIBILITY RULEMAKING EXTENDED: Public comment deadlines in proposed rulemaking covering improved visibility for vehicle drivers have been extended to allow time for more performance testing. (See *Status Report*, Vol. 13, No. 16, Nov. 17, 1978.) NHTSA has extended the comment date to April 17 for proposed rulemaking on fields of direct view and rear-view mirror systems for passenger cars. Comments on similar proposals covering all other vehicles will be accepted until May 29. Comments should be directed to Docket 71-3a, Notice 5 (rear-view mirror systems), and to Docket 70-07, Notice 6 (fields of direct view), Docket Section, Room 5108, National Highway Traffic Safety Administration, 400 Seventh St., S.W., Washington, D.C. 20590.

Points Of Concern On Multipiece Rims

NHTSA has listed the following 19 questions for which it is seeking answers in the multipiece rim rulemaking. Commenters have been asked to respond to these questions by number:

1. Approximately how many multipiece rims are currently being used on all vehicles?

2. What is the distribution of multipiece rims being used on vehicles among the various classes, sizes, and weights of vehicles?

3. For how long a period is a multipiece rim usually used on vehicles being driven on the road before the rim can no longer be used on those vehicles?

4. Approximately how many multipiece rims are retired annually?

5. What are the relative advantages and disadvantages of multipiece rims, as opposed to drop-center rims, in terms of safety (including worker experience), performance, production costs, and maintenance?

6. What is the annual production volume of multipiece rims by each manufacturer for each design type and size combination? What proportion of this production is for use as original equipment and what proportion is intended for use as replacement parts? How many multipiece rims of each design type and size are imported each year from foreign sources?

7. What is the distribution of multipiece rims in use between disc-wheel and spoke-wheel application? How does this distribution compare with the distribution of drop-center rims in use between disc-wheel and spoke-wheel application?

8. What are the relative production costs of wheels using multipiece rims as opposed to drop-center rims for equivalent uses?

9. What are the benefits and disadvantages of converting all vehicles to drop-center rims?

10. What is the retail price of equipment needed to mount tires on drop-center rims, and how does this compare with the price of equipment needed to mount tires on multipiece rims?

11. Which manufacturers would be affected by a requirement that had the effect of banning multipiece rims? How and to what extent would they be affected?

12. What is the capability of manufacturers currently producing multipiece rims to convert to producing exclusively drop-center rims? What additional facilities, if any, would be needed?

13. What schedule for implementing the tire and rim component retention requirements for wheels on vehicles other than passenger cars is necessary to minimize the impacts of converting to production of drop-center rims, if such requirements are found to be necessary? Explain why a shorter schedule would not be practicable.

14. Are multipiece rims being phased out of production at the present time? If so, indicate the rate at which the rims are being phased out of production and for which vehicles.

15. What is the capability of each current multipiece rim design for retaining the tire and rim components in sudden deflation and run-flat conditions, and for maintaining vehicle control? What effect does tire and rim retention have on commercial vehicle control in the event of the tire failure? Please provide relevant test data, engineering analyses, and other available information which supports that answer for each multipiece rim design.

16. If the capability does not exist, could it be created? If so, explain how it could be created and the costs of creating it.

17. If this capability exists, what improvements can make it more effective in reducing the chances of explosive separations?

18. If this capability exists, what tests could be used to evaluate its safety capabilities?

19. To what extent is the industry actively pursuing research and development that could minimize the chances of explosive separations of multipiece rims? Have any projects shown promise of minimizing those chances? If so, describe the project.

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- **POINTS OF CONCERN** about multipiece rim use and problems are listed by NHTSA as rulemaking comments are solicited. . . . Page 11

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