

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 25, 1973

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D. C.
on the 10th day of October 1973.

FORWARDED TO:)
Honorable James B. Gregory)
Administrator)
National Highway Traffic Safety)
Administration)
Department of Transportation)
Washington, D. C. 20590)

SAFETY RECOMMENDATIONS H-73-34 thru 36

The National Transportation Safety Board welcomes the opportunity to comment on Notice 1 Docket 73-20, the Fuel System Integrity Proposal. This proposed rulemaking specifies rear moving-barrier crash, lateral crash, and dynamic rollover requirements as a test of fuel-system integrity. The Board commends NHTSA for the proposal.

However, in response to Notice 1, Docket 73-20, the National Transportation Safety Board recommends that the National Highway Traffic Safety Administration:

1. Require that all front- and rear-end testing be done with the test vehicle in a nosedown, rear-end-up, panic-braking attitude which approximates the attitude produced when the vehicle, with driver only, is being braked at the maximum rates required by the proposed FMVSS 105a. (Recommendation H-73-34).
2. Require two tests in addition to the rear moving-barrier crash test (S6.2). Each rear corner of the test vehicle should be impacted at 30 m.p.h., at the angle of 30° from the longitudinal surface (side) of the vehicle, with the vehicle in a panic-braking attitude. These two tests would permit evaluation of the integrity of fender-mounted fuel tanks and fill pipes. (Recommendation H-73-35).

The Board notes that the smooth, flat-faced moving barrier which will be used for testing does not physically represent the range of bumper types now in use. The face of the barrier extends above and below the rear bumpers of most vehicles, and the flat face would not press a test vehicle's bumper either upward or downward. Furthermore, the flat face has no stress-raising protuberances. As a result, the proposed flat-faced moving barrier will

probably be a less challenging test of fuel tank integrity in most vehicles than perhaps any other possible configuration would have been.

However, it would be difficult to establish a single representative test barrier characteristic of the many varieties of bumpers or other front-end structures now used on automobiles and trucks. Furthermore, the establishment of a test barrier will not be representative as long as bumpers now in use have not been standardized for mutual interaction.

The National Transportation Safety Board also recommends that NHTSA:

3. Consider any standard adopted which involves testing by the presently proposed moving barrier as an interim standard only. The moving barrier should be employed as a practical approximation, pending the development of a future NHTSA performance standard which would provide for mutual interaction between bumpers of different types of vehicles. (Recommendation No. H-73-36).

REED, Chairman, McADAMS, THAYER, and HALEY, Members concurred in the above recommendations. BURGESS, Member, was absent, not voting.



John H. Reed
Chairman

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