

Justification for 254 mm width of Head Restraints on Bench Seats

Presented by the United States of America

The requirement in the Final Rule for the minimum width of 254 mm for front head restraints mounted on bench seats¹ was retained due to continued safety concern of the occupants of these types of seats. Head restraints on bucket seats are required to have a minimum width of 170 mm.

In a bucket seat, the occupant is more likely to be seated in the center of the seat and centered on the head restraint due to the contour of the seat. In contrast, the lack of contour of a bench seat allows the front seat occupant (particularly the passenger) to be comfortably seated in a position that is off center from the head restraint. Therefore, a wider head restraint is needed on a bench seat than a bucket seat to ensure that the occupant is adequately protected if he/she is seated off center from the head restraint.

In the US, bench seats are found primarily in pick-up trucks and pick-up trucks comprise approximately 19 percent of the vehicles sold in the US in 2004.

Although safety belt use could better ensure that the occupant is in the proper position to maximize the safety benefit of the head restraint, in the US, safety belt use among pick-up truck drivers is still very low compared to the rest of the population. In the rural setting, seat belt use in pick-up trucks is only 54 percent².

¹ The Final Rule also clarified what is meant by a bench seat in the context of the head restraint width requirement, by stating that a vehicle with a front center seating position is required to have the wider head restraints in the outboard positions. This was necessitated by the potential for inconsistent interpretation by manufacturers of what is or is not a bench seat.

² DOT HS 809 557, March 2003