

KOREAN INDUSTRIAL STANDARD

Head Restraints for Automobile Occupants

1. Scope

This Korean Industrial Standard specifies head restraints for automobile occupants which are designed in due consideration of strength of the seat back in order to restrain the backward incline of head and to prevent or reduce the injury of neck for automobile occupants in a rear end collision, hereinafter referred to as "head restraints".

2. Classification

Head restraints shall be classified as in **Table 1**. according to the shape and fixing method of fixture.

Table 1

Classification		Shape and fixing method of fixture	Reference fig
Class 1		The fixture is shaped like a saddle, and constructed so as to fix the head restraint on top of the seat back.	
Class 2		The fixture is of absorption type, screw fixing type, etc., and constructed so as to fix the head restraint on a part of automobile such as a decorative pannel, separating pannel, etc.	
Class 3		The fixture is shaped like an upsidedown letter "L", and constructed so as to fix the head restraint by plugging into the clearance between the rear seat back and car body.	
Class 4	Type A	The fixture is of plugging type, screw fixing type, etc., and constructed so as to fix the head straint at the fixing equipment on the seat back.	
	Type B	The shape and fixing method of the fixture are same as those in Type A, and the sitting position of occupant is fixed and comparatively difficult to move sideways.	

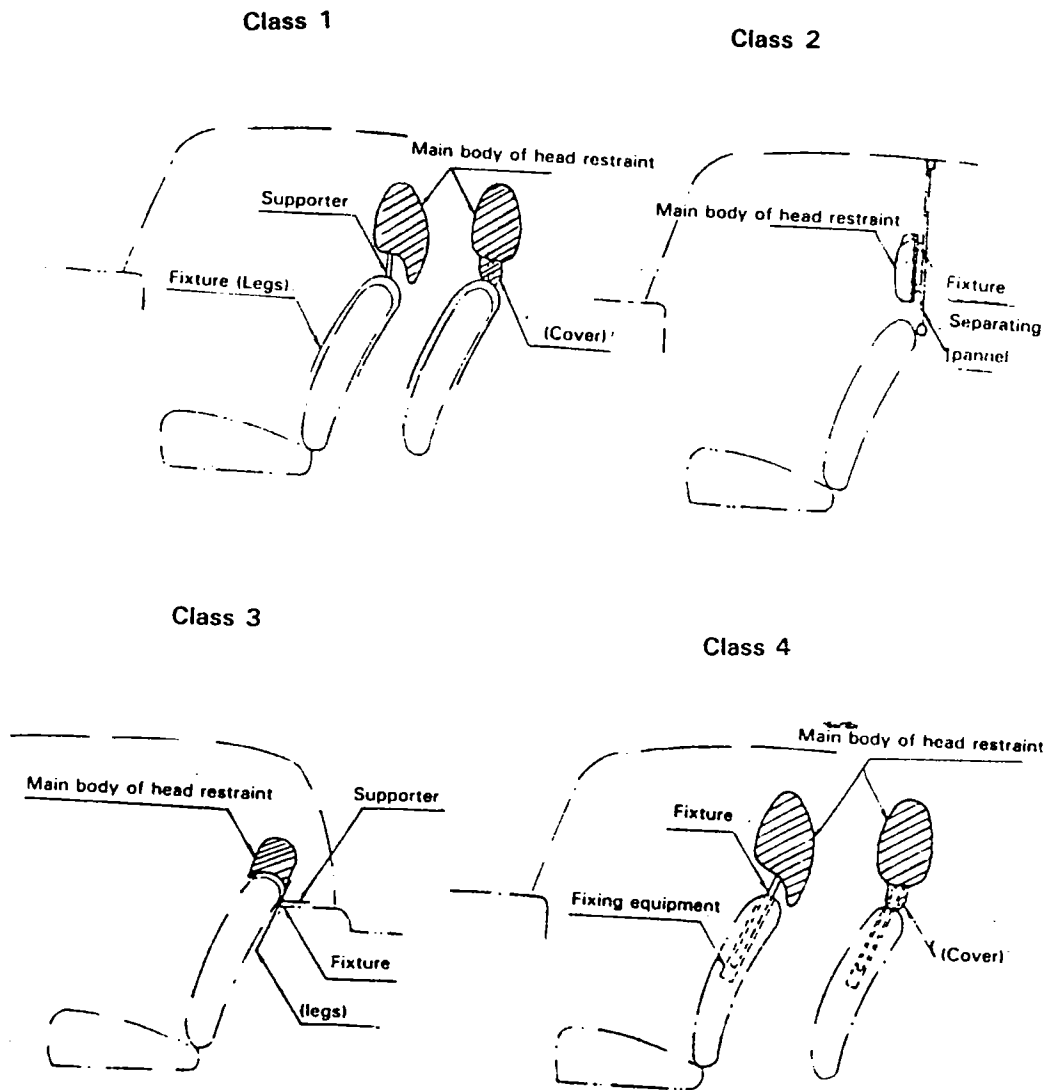


Fig. 1. Example of Classification

3. Composition

Head restraint shall consist of main body of head restraint, supporter and fixture. However, supporter may be equipped as needed from construction.

4. Material, Construction, Dimensions and Performance

4.1 Main Body of Head Restraint

Head restraint shall be as follows

- (1) Materials used for main body of head restraint shall be those able to absorb an impact, such as foam material, lock material, etc.
- (2) Materials used for the front part and upper part of main body of head restraint shall be flexible and rigid, slip-proof and stick-proof materials and shall be free from any flaws.
For **Class 2** head restraint having construction able to absorb the impact by providing an air cushion, material of air tightness shall be used.
- (3) Stitched part or adhered part of the outer skin shall withstand repeated applications of pressure.
- (4) For metal fittings to be attached at inner or outer body of the head restraint, materials having adequate strength shall be used, and there shall be no sharp corners or projections.
- (5) Rust preventive treatment shall be applied to all parts. However, this shall not apply to corrosion resistant materials.
- (6) Metal or hard material parts outside main body of head restraint shall be covered by materials able to absorb the impact.
- (7) The size of the head restraint, at the front, shall be as follows:
 - (a) The width shall be not less than 170 mm at the top and bottom ends, minimum width of main body of the head restraint, as shown in Fig. 2 and shall be not less than 225 mm at a location of 80 mm below the top end. However, for **Class 4 Type B** may be not more than 255 mm.
 - (b) The height shall generally be not less than 165 mm at the 170 mm wide central part as shown in Fig. 2.

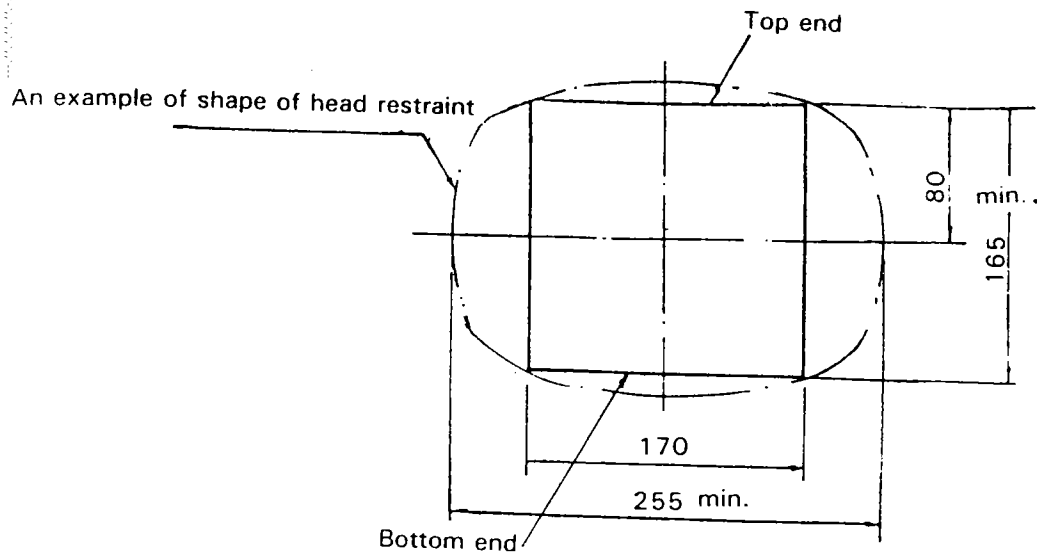


Fig. 2. Size of Main Body of Head Restraint

- (8) When the head restraint is tested by the method given in 5.1, its inner construction shall not give the feeling of local contact.
- (9) The main body of head restraint shall be able to prevent rebounding effect on impact from front and upper sides.

4.2 Supporter

Supporter of head restraint shall be as follows:

- (1) Supporter shall be of construction to connect firmly the main body of the head restraint and the fixture of the head restraint in the middle of them and to support the locating of head restraint.
- (2) For supporter, materials having adequate strength with no sharp corners or projections shall be used.
- (3) Rust preventive treatment shall be applied to all metal parts. However, this shall not apply to corrosion resistant materials.

4.3 Fixture

Fixture of head restraint shall be as follows:

- (1) For fixture, materials having adequate strength with no sharp corners or projections shall be used.