SAE International

SURFACE VEHICLE RECOMMENDED PRACTICE

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Motor Vehicle Seat Belt Anchorages - Test Procedure

RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Seat Belt Systems Standards Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. ***Scope***—This SAE Recommended Practice outlines the static test procedure for the evaluation of the performance of seat belt anchorages attached to vehicle structure or to seat assemblies installed in the vehicle. (This SAE Recommended Practice supersedes the Test Procedure Section of SAE J787b.) Design recommendations and performance requirements are specified in the Recommended Practices SAE J383 and SAE J385, respectively.

2. ***References***

2.1 Applicable Publications—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the lastest revision of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J383—Motor Vehicle Seat Belt Anchorages—Design Recommendations
SAE J385—Motor Vehicle Seat Belt Anchorages—Performance Requirements
SAE J879—Motor Vehicle Seating Systems

3. ***Definitions***

3.1 Anchorage—The final point of attachment for transferring seat belt assembly loads to the vehicle structure.

3.2 Attachment Hardware—All load bearing hardware designed for securing the webbing portion of a seat belt assembly to a motor vehicle structure or intermediate structural component including but not limited to retractors, end fittings, bolts, studs, nuts or other attachment means but not including those components affixed to the vehicle.

NOTE—If the seat belt is attached to a seat, the seat is not attachment hardware.

4. ***Test Equipment***

4.1 Vehicle or Significant Vehicle Structure—The venicle or portions of the vehicle significant to the support of the anchorages to be tested. Vehicle components likely to influence the performance of those anchorages must be included.

4.2 **Test Machine—**A facility with provision to secure the vehicle or significant vehicle structure as anchorage test loads are applied, with a means to apply the anchorage test loads, such as pneumatic or hydraulic cylinders, and with instrumentation appropriate to measuring the load-time characteristic. (See Figure 1.).

4.3 **Test Attachments—**Means such as cables or chains must be provided to connect the load generating devices to the body blocks (see Figure 2), which distribute load through belts or cables and anchorage hardware to the anchorages under test.

5. Test Procedure

5.1 The vehicle or significant vehicle structure is securely attached to the test machine in a manner so as not to affect the strength characteristics of the anchorages.

5.2 Attachments are connected between the test machine and the anchorages to be tested as follows:

a. Attachment hardware is positioned to approximate its normal location in the vehicle.
b. Anchorages for laterally adjacent seating positions shall be tested simultaneously.
c. The test load is applied initially at an angle of 10 degrees ± 5 degrees above the horizontal in the direction shown in Figure 1.
d. For belt anchorages integral to the seat assembly, seat inertia force of SAE J879 is to be applied simultaneously with the belt anchorage loads (see Figure 1).

5.3 The magnitudes of anchorage loads to be applied are specified in SAE J385.

6. Notes

6.1 **Marginal Indicia—**The change bar (l) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

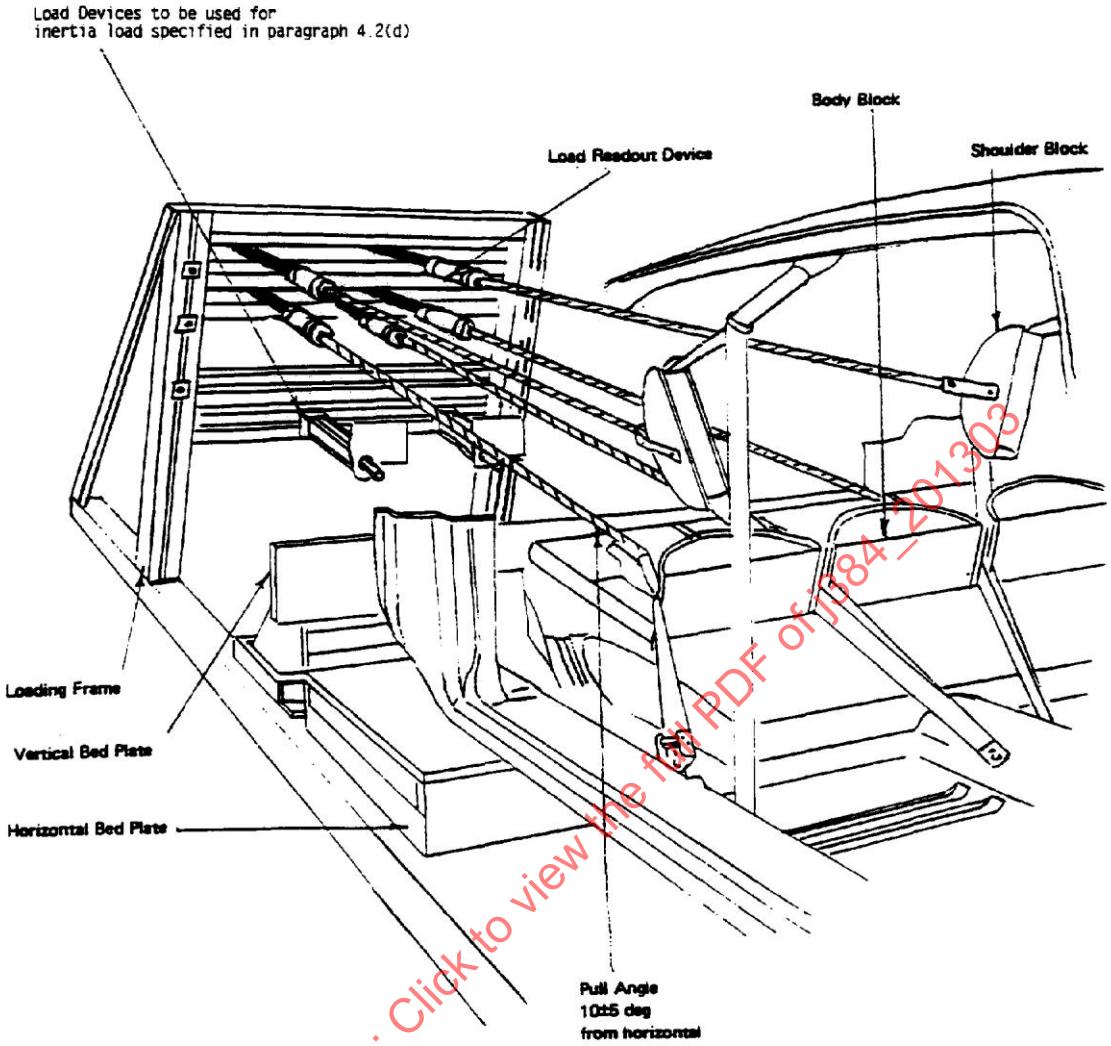

FIGURE 1—TYPICAL STATIC TEST FIXTURE