SURFACE VEHICLE RECOMMENDED PRACTICE

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Cab Sleeper Occupant Restraint System Test

RATIONALE

This technical report is being stabilized because it 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 Truck Crashworthiness 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 provides a standardized test procedure for heavy-duty truck sleeper berth restraints to determine whether they meet the FMCSR 393.76(h) requirements.

1.1 Purpose

This document was developed to determine if a truck sleeper berth restraint is adequate to sustain a predetermined maximum horizontal load such as required by FMCSR regulation 393.76(h).

2. REFERENCES

2.1 Applicable Document

The following publication forms a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 FMCSR Publication

Available from the Federal Motor Carrier Safety Administration, www.fmcsa.dot.gov.

FMCSR 393.76 Sleeper Berths

3. DEFINITION

The restraint system is the apparatus or structure designed to prevent ejection of an occupant from the sleeper berth during sudden vehicle deceleration. The system may be removable to allow entrance and egress to the berth.

4. FACILITIES - APPARATUS AND MATERIALS

4.1 Test Materials

4.1.1 The modular vehicle component, or enclosure, containing the sleeper berth.

4.1.2 The occupant restraint system, including all necessary hardware.

4.2 Test Equipment

4.2.1 A means for fastening the enclosure securely to the ground plane in its normal operating position.

4.2.2 A body block consisting of a curved plate or cylinder of overall length sufficient to engage the active portions of the restraint system. The plate should be curved with edge radii as shown in Figure 1. If a cylinder is used, it should be 305 mm (12 in) in diameter or larger.

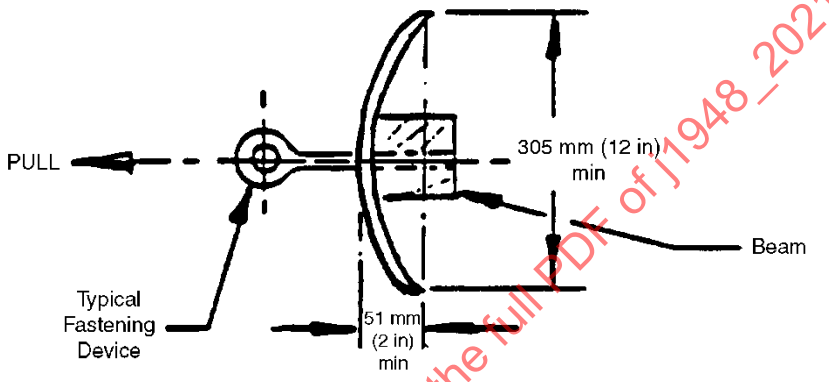

FIGURE 1 - END VIEW BODY BLOCK

4.2.3 A means of locating one or more fastening devices.

4.2.4 A horizontal loading device with minimum capacity of 26688 N (6000 lb).

4.2.5 A means for measuring and recording the load in this device.

5. PROCEDURE

5.1 Load Test

5.1.1 Locate and fasten sleeper berth enclosure in its normal position relative to the ground plane.

5.1.2 Locate and fasten restraint system.

5.1.3 Locate body block against occupant side of restraint system in any axis at any location designated as the restraint area.

5.1.4 Fasten body block to loading device.

5.1.5 Check and calibrate instrumentation.

5.1.6 Apply a force of 26688 N (6000lb) horizontally –0 to +15 degrees in a forward direction at a maximum rate of 1334 N/s (300 lb/s).

5.1.7 Hold 26688 N (6000 lb) for 10 s.

5.1.8 Observe performance.