

SURFACE VEHICLE RECOMMENDED PRACTICE

J2292™

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Superseding J2292 JAN2016

(R) Combination Pelvic and Upper Torso Operator and Occupant
Restraint Systems for Off-Road Work Machines

RATIONALE

SAE J2292 has been reaffirmed to comply with the SAE Five-Year Review policy.

FOREWORD

This SAE Recommended Practice includes requirements for combination pelvic and upper torso restraint systems and testing of seat belt anchorages on off-road work machines and the testing of seat belt assemblies.

1. SCOPE

This SAE Recommended Practice establishes minimum performance and test requirements for combination pelvic and upper torso occupant restraint systems provided for off-road self-propelled work machines.

1.1 Purpose

This document applies to 3-point and 4-point occupant restraint systems (Type 2 and 2a) for off-road, self-propelled work machines fitted with ROPS.

1.2 Field of Application

1.2.1 A Type 2 belt is optional and may be used where upper torso restraint is desired. This document provides guidelines for, but does not imply in any way, that an upper torso occupant restraint system is required for off-road work machines.

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Full document details: SAE J2292_202108

For more information on this standard, visit
https://www.sae.org/standards/content/J2292_202108

2. REFERENCES

2.1 Applicable Documents

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

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

SAE J386 Operator Restraint Systems for Off-Road Work Machines

SAE J826 Devices for Use in Defining and Measuring Vehicle Seating Accommodation

2.1.2 ISO Publication

Available from American National Standards Institute, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, www.ansi.org.

ISO 6683 Earth-Moving Machinery - Seat Belts and Seat Belt Anchorages

ISO 3411 Earth-Moving Machinery – Human Physical Dimensions of Operators and Minimum Operator Space Envelope

ISO 5353 Earth-Moving Machinery - Seat Index Point

ISO 11112 Earth-Moving Machinery - Operator's Seat-Dimensions and Requirements

3. DEFINITIONS

3.1 ADJUSTMENT HARDWARE

Hardware designed for adjusting the belt assembly to fit the user, including such hardware that may be integral with buckle, attachment hardware, or retractor.

3.2 ANCHORAGE

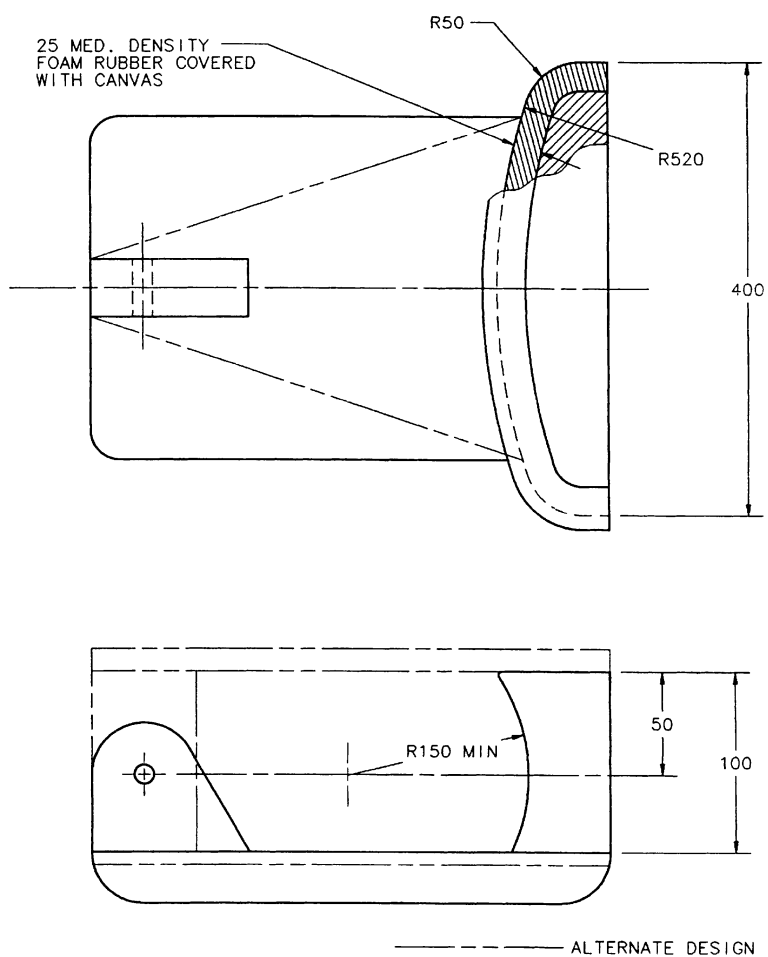
The point where the seat belt assembly or extension (tether) belt is mechanically attached to the seat system or machine.

3.3 ATTACHMENT HARDWARE

Hardware for securing a seat belt assembly to an anchorage on a seat system or on a machine.

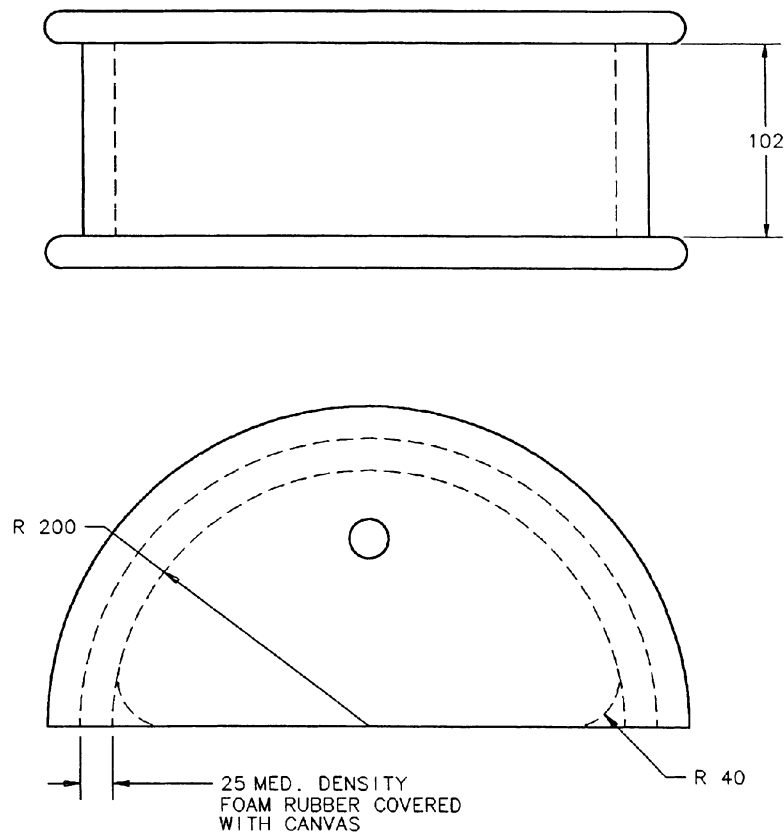
3.4 BODY BLOCK

The test device used to apply the seat belt force to the seat system (reference Figures 1 and 2).



DIMENSIONS NOT SHOWN ARE OPTIONAL TO SATISFY THE TEST FACILITY AND DO NOT INFLUENCE THE TEST RESULTS.

Figure 1 - Pelvic body block



DIMENSIONS NOT SHOWN ARE OPTIONAL TO SATISFY THE TEST FACILITY AND DO NOT INFLUENCE THE TEST RESULTS.

Figure 2 - Torso body block

3.5 BUCKLE

A quick release component of a seat belt assembly which accepts and connects to a latch plate and is intended to facilitate wearing and removal of the seat belt by an occupant.

3.6 MICRO-SLIP (CREEP)

The amount of unintentional lengthening of the seat belt assembly loop during use that is caused by motion of the machine, the seat, and the seat belted occupant.

3.7 EXTENSION (TETHER) BELT

Any strap, belt, or similar device (webbing, wire cable, solid link, etc.) that aids in the transfer of seat belt forces.

3.8 HARDWARE

Any metal or rigid plastic part of the restraint system.