

Agricultural and forestry tractors -  
 Passenger seat - Requirements and test  
 procedures

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**EN 15694:2009**

**prA1**

November 2013

ICS 65.060.10

English Version

## Agricultural and forestry tractors - Passenger seat - Requirements and test procedures

Tracteurs agricoles et forestiers - Siège du passager -  
Prescriptions et modes opératoires d'essais

Land- und forstwirtschaftliche Traktoren - Beifahrersitz -  
Anforderungen und Prüfverfahren

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 144.

This draft amendment A1, if approved, will modify the European Standard EN 15694:2009. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Preview  
 NEN-EN 15694:2009/Ontw. A1:2013

## Foreword

This document (EN 15694:2009/prA1:2013) has been prepared by Technical Committee CEN/TC 144 “Tractors and agricultural and forestry machinery”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

Preview  
prA1

## Introduction

This Amendment cancels and replaces the Annex B of EN 15694:2009.

This new Annex B includes the definition for the passenger deflection limiting volume. For this purpose the standard ISO 3471:2000 *Earth-moving machinery – Human physical dimensions of operators and minimum operator space/envelope* has been considered in order to characterize the main physical dimensions (e.g. shoulders width, pelvis width and height from the seat) of a seated operator belonging to the 95<sup>th</sup> percentile. Then, these dimensions have been compared with the main deflection limiting volumes / clearance zones defined for an operator and specified by the OECD codes, the standard ISO 21299 which refers to powered ride-on turf care equipment, the standard ISO 13459 which refers to the enclosure dimensions for dumper trainer seat, etc.

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## 1 Modification to Clause 2

"Delete the following reference:

*ISO 5700, Tractors for agriculture and forestry – Roll-over protective structure (ROPS) – Dynamic test method and acceptance conditions*

Add the following reference:

*ISO 5700:1995, Tractors for agriculture and forestry – Roll-over protective structure (ROPS) – Dynamic test method and acceptance conditions"*

## 2 Modification to Clause 3

Add:

### "3.2

#### **passenger seat index point (SIP<sub>p</sub>)**

point located in the central longitudinal plane of the apparatus for determination when installed in the passenger seat

### 3.3

#### **passenger deflection-limiting volume (PDLV)**

volume which is defined in relation to the reference planes and the passenger seat index point (SIP<sub>p</sub>) and serving to set limits and deflections permissible when performing laboratory evaluations of the protective structure

### 3.4

#### **reference planes**

vertical planes being longitudinal and transversal to the tractor and passing through the passenger seat index point; these reference planes shall be assumed to move horizontally with the seat during loading but to remain perpendicular to the tractor or the floor of the roll-over protective structure

### 3.5

#### **interference zone**

portion of the operator clearance zone (OCZ) where a defined maximum interference with PDLV is allowed"

## 3 Modification to Annex B

Delete Annex B and replace with the following (new Annexes B and C):

## Annex B

(normative)

### Deflection limiting volume, sequence of tests and acceptance criteria for the passenger seat (see 5.2)

#### B.1 Passenger Deflection Limiting Volume (PDLV)

The passenger deflection limiting volume (PDLV) is established using the passenger seat index point ( $SIP_p$ ), as defined in 3.2 according to the dimensions reported in Figure B.1.

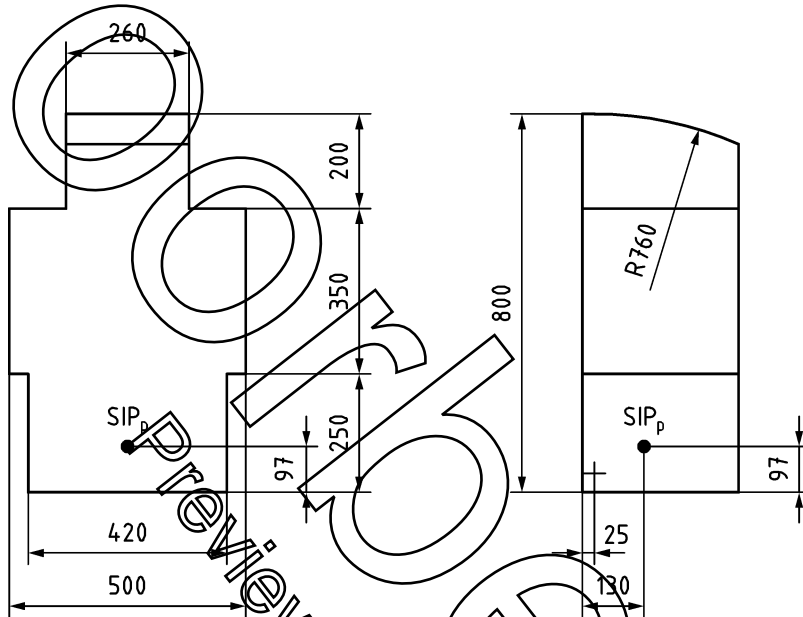


Figure B.1 — Passenger deflection limiting volume (PDLV)

It is also allowed to rotate forward and rearward and to each side about the  $SIP_p$  not more than  $15^\circ$  with respect to transversal and longitudinal reference planes (Figure B.2).



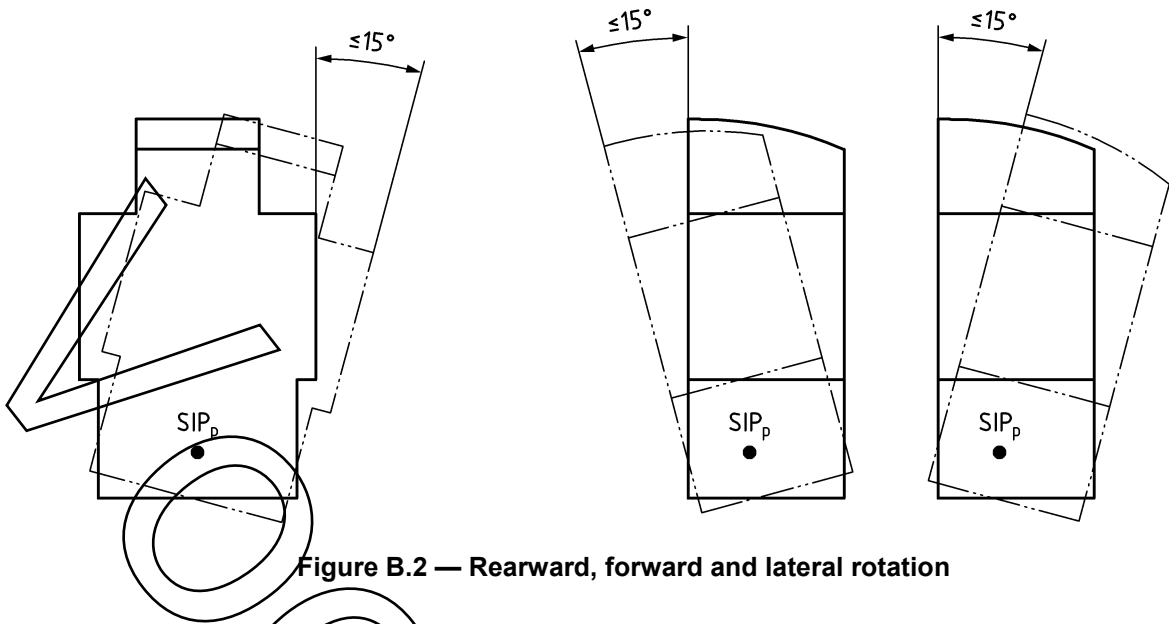


Figure B.2 — Rearward, forward and lateral rotation

In addition, the upper portion of the PDLV, as illustrated in Figure B.3, is allowed to flex forward and rearward an additional 15° maximum with respect to transversal reference plane. This flexion movement is around a flexion axis (FA) located as reported in Figure B.3.

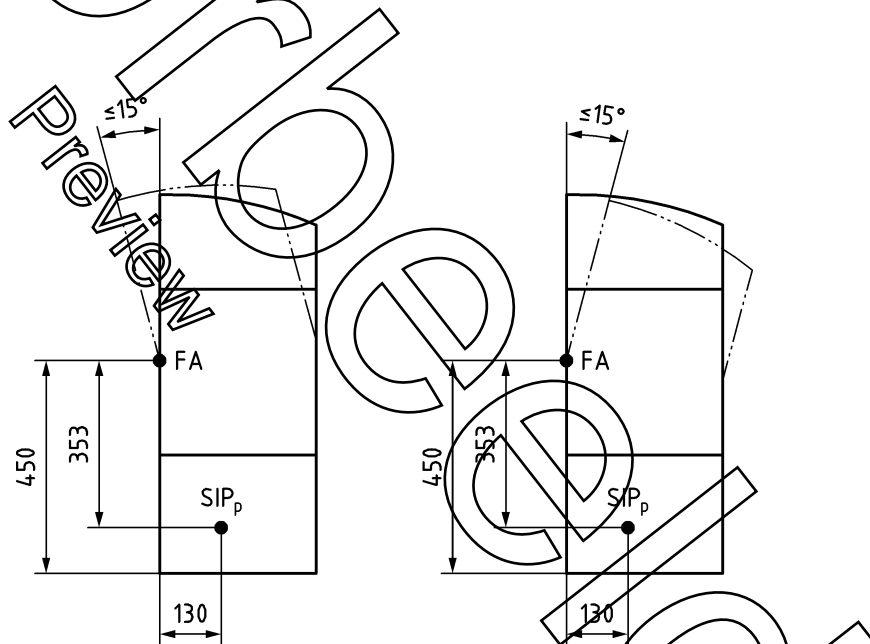


Figure B.3 — Rearward and forward flexion (side view)

Thus, the overall possible rearward and forward motions of the PDLV are illustrated in the side views of Figure B.4. The PDLV is allowed to rotate forward, rearward and to each side about the  $SIP_p$  and to flex forward and rearward about FA in any part of the tests.

The  $SIP_p$  may move during the test due to deflection of the chassis. If this occurs, the PDLV will continue to maintain its relationship with the  $SIP_p$ .

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