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**Earth-moving machinery — Dumpers —
Trainer seat/enclosure**

Engins de terrassement — Tombereaux — Enceinte/siège de l'instructeur

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Reference number
ISO 13459:1997(E)

Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13459 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety requirements and human factors*.

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Earth-moving machinery – Dumpers – Trainer seat/enclosure

1 Scope

This International Standard specifies requirements for seat(s) for short-term usage when provided on dumpers as defined in ISO 6165. The seat is for the use of a trainer, inspector or maintenance worker. Provision or installation of a "trainer seat" is not a mandatory requirement.

This International Standard is not applicable to compact dumpers as defined in ISO 6165.

NOTE 1 The requirements of this International Standard can be used by engineers and designers when designing such a seat and enclosure.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5353:1995, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point.*

ISO 6165:—¹⁾, *Earth-moving machinery — Basic types — Vocabulary.*

ISO 6683:1981, *Earth-moving machinery — Seat belts and seat belt anchorages.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 trainer seat: Seat installed in the operator's compartment adjacent to or behind the operator's seat for the primary purpose of training an operator.

NOTE 2 The seat is for occasional use by a trainer, but can be used by an inspector or maintenance worker.

3.2 handgrip: Device which the trainer may hold on to, providing support and preventing body movement.

1) To be published. (Revision of ISO 6165:1987)

4 Requirements

4.1 Seat dimensions

All dimensions shall be referenced to the Seat Index Point (SIP) as determined in accordance with ISO 5353. The dimensions for trainer seats shall be as shown in figure 1 and table 1. Deviations from the minimum or maximum dimensions given in table 1 are acceptable only if they can be justified by unusual ergonomic considerations. The trainer seat may consist of independent cushions, provided they conform to the required dimensions.

4.2 Location

4.2.1 The trainer seat shall be installed within the operator's compartment.

4.2.2 To avoid interrupting the operator's visibility, the SIP of the trainer seat shall not be located in front of the SIP of the operator seat. The trainer seat may be located behind the operator's seat, provided that the trainer can observe operation of the dumper.

4.3 Enclosure dimensions

The space enclosure shall have the minimum dimensions given in figure 2.

4.4 Materials

Materials used for the trainer seat and its fittings shall be fire-retardant.

4.5 Handgrip

A handgrip shall be conveniently placed in the operator's compartment to provide a handhold for the trainer. The handgrip can be the grip to push to open or to pull to close the door. It is not acceptable to utilize the grip provided to latch and unlatch the door. It is not necessary to provide a handgrip if the trainer seat is located behind the operator's seat and the trainer is able to hold on to the back of the operator's seat.

4.6 Storage

The trainer seat may be designed and constructed to enable it to be folded and securely held in a stored position when it is not in use.

4.7 Seat belt

The trainer seat shall have a seat belt and seat belt anchorage which comply with ISO 6683.

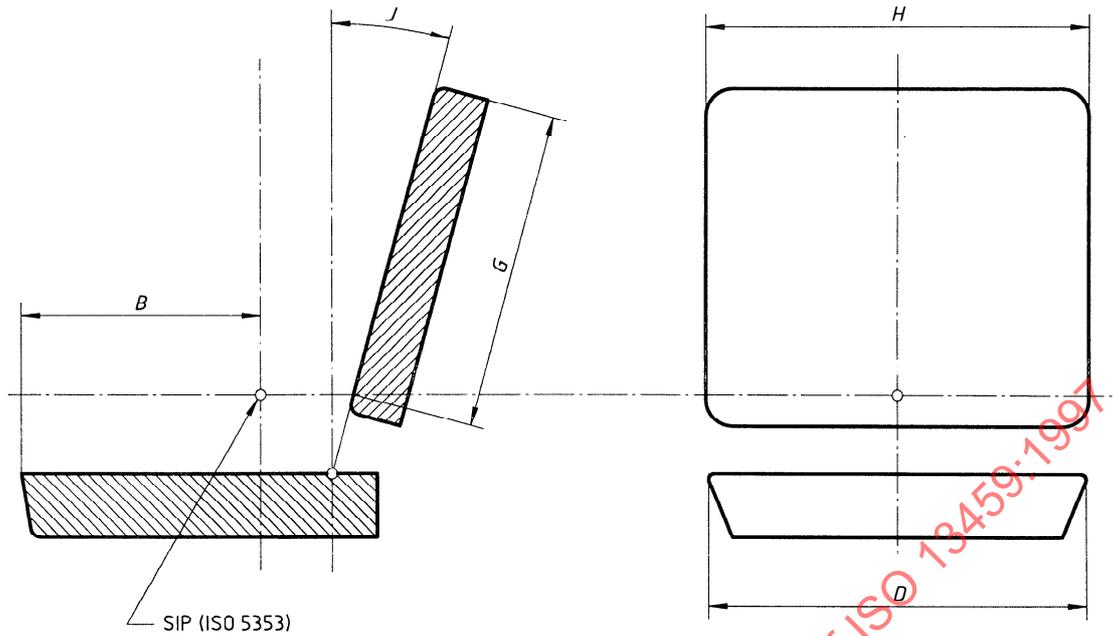


Figure 1 – Trainer seat dimensions

Table 1 – Trainer seat dimensions

Dimensions in millimetres

Symbol (see figure 1)	Description	Maximum	Basic	Minimum
<i>B</i>	Seat cushion length	320	300	215 ^{*)}
<i>D</i>	Seat cushion width	—	360	300
<i>G</i>	Back cushion height	—	400 ^{*)}	150 ^{*)}
<i>H</i>	Back cushion width	500 ^{*)}	360	300 ^{*)}
<i>J</i>	Back cushion angle	15° ^{*)}	10° ^{*)}	0°

^{*)} Dimensions are equal to those given in ISO 11112:1995, *Earth-moving machinery — Operator's seat — Dimensions and requirements*.

Dimensions in millimetres

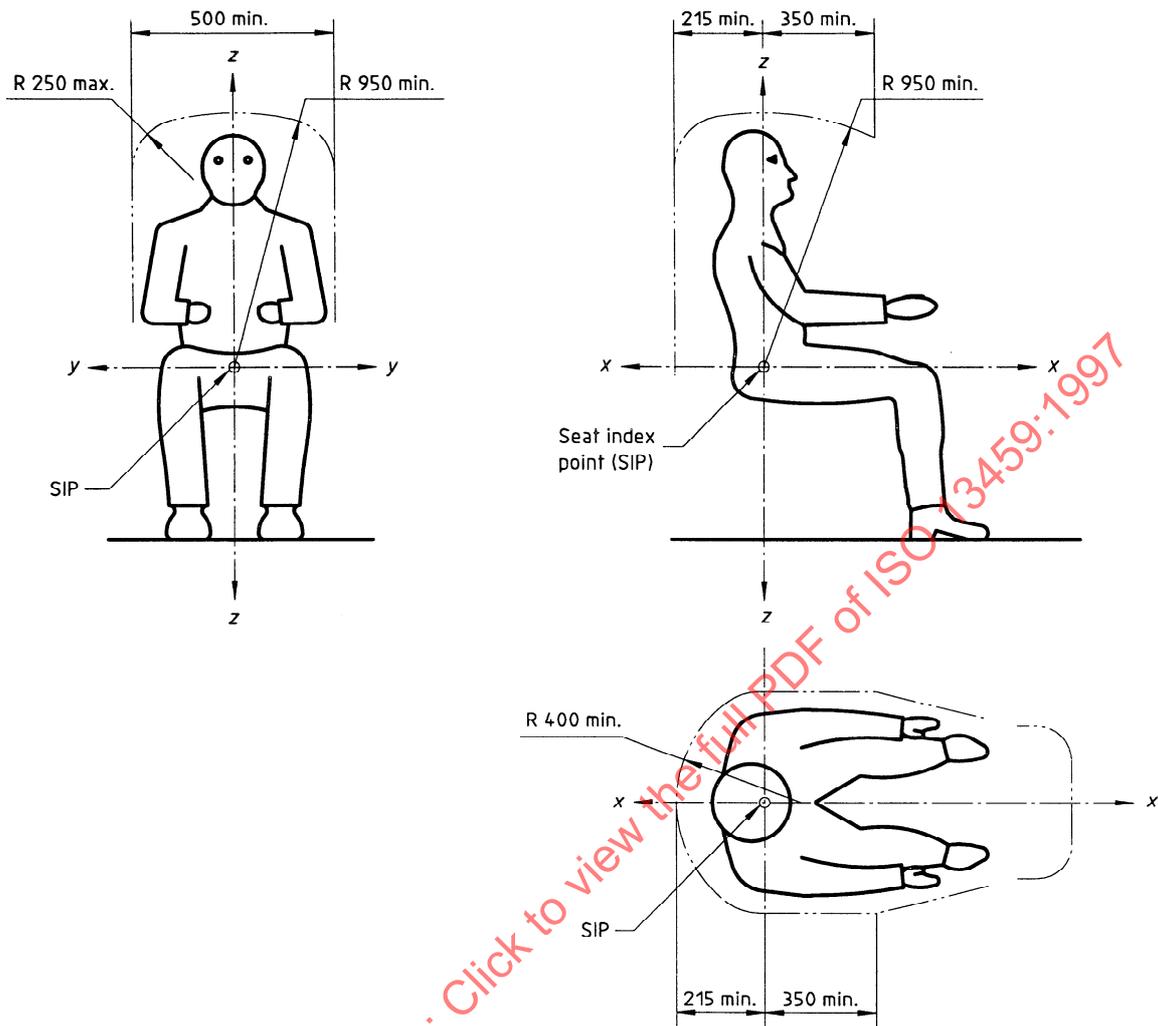


Figure 2 — Trainer's enclosure

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