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Alpine ski/binding/boot (S-B-B) system — Assembly, adjustment and inspection

Ensemble ski/fixation/chaussure (SFC) pour skis alpins — Montage, réglage et contrôle

Reference number
ISO 11088:2023(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 83, *Sports and other recreational facilities and equipment*, Subcommittee SC 4, *Snowsports equipment*.

This seventh edition cancels and replaces the sixth edition (ISO 11088:2018), which has been technically revised.

The main changes are as follows:

— Table 1 on boot binding compatibility has been added;

— former Table A.1 on the determination of skier type (example 1) has been removed;

— 6.4 has been updated;

— Figure C.1 has been updated;

— normative references have been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

International Standards exist for the components of the alpine ski/binding/boot (S-B-B) system, mainly intended for the component manufacturers. An International Standard, ISO 8061, also exists for the selection of release values.

This document is intended primarily for retailers. However, its aim is to include, in one text, the different phases of the choice of components, their assembly, adjustment and inspection in the form of practical procedures, and to provide tolerances for inspection and adjustment. It can be used by all individuals and institutions concerned with those procedures.

The inspection procedures and tolerances described in this document apply to the condition of the S-B-B system before it leaves the ski shop to judge the condition of the equipment once it is put into use and for periodic verification of used equipment.

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Alpine ski/binding/boot (S-B-B) system — Assembly, adjustment and inspection

1 Scope

This document specifies assembly, adjustment and inspection procedures for the binding mechanisms of skis, integrating, in a practical way, the requirements of International Standards which are related to skis, bindings and boots.

It is applicable to a ski-binding-boot system (S-B-B) for alpine skiing, of which at least one component is owned by the user.

This document is applicable for complete and incomplete alpine ski-binding-boot systems which are owned by the user or rented for 15 days or more.

NOTE ISO 13993 gives a method of measurement for equipment which is rented for less than 15 days.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5355, *Alpine ski-boots — Requirements and test methods*

ISO 8061:2019, *Alpine ski-bindings — Selection of release torque values*

ISO 8364, *Alpine skis and bindings — Binding mounting area — Requirements and test methods*

ISO 9462, *Alpine ski-bindings — Requirements and test methods*

ISO 9523, *Touring ski-boots for adults — Interface with touring ski-bindings — Requirements and test methods*

ISO 11087, *Alpine ski-bindings — Retention devices — Requirements and test methods*

ISO 11110, *Winter-sports equipment — Test devices for the setting of the functional unit ski/boot/binding — Requirements and tests*

ISO 13992, *Alpine touring ski-bindings — Requirements and test methods*

ISO 23223:2021, *Alpine ski boots with improved walking soles — Interface with alpine ski-bindings – Requirements and test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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3.1
fitting adjustment
procedure required to obtain geometric compatibility and correct functioning of different components

3.2
indicator setting
Z-mark
release indicator value marked on the binding

Note 1 to entry: The binding shall be in accordance with ISO 9462.

3.3
skier type
release preference
release adjustment (3.7) criteria pertaining to the type of skiing to be undertaken, as assessed by the skier in accordance with Table A.1

Note 1 to entry: If the skier desires a setting outside the tolerances of this document, he or she can select such a setting at his or her own discretion. Ski-binding manufacturers should provide guidelines to shops and skiers regarding the recommended magnitude of such changes. Skiers should be clearly informed when these changes result in *release values* (3.5) above the upper limit or below the lower limit specified in ISO 8061.

3.4
initial indicator position
release indicator position of the binding corresponding with specific instructions

Note 1 to entry: The instructions shall be in accordance with Annex B.

3.5
release value
M_Z, M_Y
maximum torque or moment, M_Z and $M_{Y,}$ for which the boot disconnects quasistatically from the binding

Note 1 to entry: Moment is the force couple and a torque is a force applied to a lever arm.

3.5.1
selected individual release value
reference value
torque or moment based on the skier's choice of skier type and skier's height and mass for which the boot disconnects from the binding

Note 1 to entry: The determination of selected individual release values shall be in accordance with ISO 8061.

3.5.2
measured release value
torque or moment for which the boot disconnects from the binding for a given S-B-B system

Note 1 to entry: It is expressed in newton metres.

Note 2 to entry: The procedure is given in 6.7.

3.6
inspection range
maximum acceptable difference between the *measured release value* (3.5.2) and the *selected individual release value* (3.5.1)

Note 1 to entry: It is specified as ±15 % of the selected individual release value, or ±3 Nm for twist and ±10 Nm for forward lean, whichever is greater, or one horizontal row up or down from the selected individual release value determined in Table B.1 or on the binding manufacturer's adjustment chart.

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3.7
release adjustment
procedure for making the *measured release values* (3.5.2) coincide with the *selected individual release values* (3.5.1) within specific limits

Note 1 to entry: The limits shall be as stated in Table B.1.

3.8
trouble-shooting
additional procedures recommended by the equipment manufacturer in order to overcome observed functional problems

3.9
re-adjustment range
maximum acceptable difference between the *measured release value* (3.5.2) and the *selected individual release value* (3.5.1) that allows corrective actions

Note 1 to entry: It is specified ±30 % of the selected individual release value, or ±6 Nm for twist and ±20 Nm for forward lean, whichever is greater, or two horizontal rows up or down from the selected individual release value determined in Table B.1 or on the binding manufacturer's adjustment chart.

4 Principle

Follow the procedure shown in Annex C.

5 Skier's parameters

5.1 General

The selected individual release values shall be in accordance with ISO 8061. As the differences are insignificant, the following procedure, using discrete values, is an acceptable approximation.

5.2 Weight method

5.2.1 Determine the skier's parameters:

a) mass;

b) height;

c) type (in accordance with Annex A);

d) age;

e) boot sole length.

5.2.2 Using Table B.1, choose the individual release values of M_Z and M_Y.

6 Equipment parameters

6.1 Choice of new equipment

The components shall be in accordance with the following International Standards:

a) ISO 8364 for skis;

b) ISO 5355 and ISO 9523 for boots;

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