
**Rental ski shop practice — Sampling
and inspection of complete and
incomplete alpine ski-binding-boot
systems in rental applications**

*Pratique pour la location dans les commerces de matériel de ski —
Échantillonnage et contrôle des ensembles complets ou incomplets
ski/fixation/chaussure dans les applications de location*

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 second edition cancels and replaces the first edition (ISO 13993:2001), which has been technically revised.

The main changes compared to the previous edition are as follows:

- a) the range classes are presented in a new [Clause 4](#);
- b) a new [Clause 5](#) has been added with summary of practice;
- c) the difference between preseason inspection and in-season inspection has been clarified (see [Clause 6](#));
- d) a new simplified pre-season inspection has been added for certain combinations of equipment in the inventory where at least one component is unused (see [6.1](#));
- e) sampling requirements have been specified in [Clause 7](#);
- f) the test for elastic travel and recentring in [A.1.1](#) has been simplified;
- g) a new [Annex B](#) has been added for range class I deviations and sample sizes;
- h) terms and definitions in [Clause 3](#) have been revised and new terms have been added where appropriate;
- i) normative references in [Clause 2](#) have been updated;
- j) the text has been editorially revised.

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.

Introduction

This document is intended to provide guidelines for performing functional inspections and adjustments of alpine ski-binding-boot systems. Adhering to these guidelines may help to reduce the risk of injuries resulting from improper mechanical functioning of releasable binding systems. However, skiing involves inherent and other risks. Injury can result from simply falling down, impact with an object or from many other actions. Many injuries are unrelated to binding function. Furthermore, even a properly functioning binding cannot release under all injury-producing loads. Therefore, it is clarified that compliance with these guidelines in no way guarantees that injury can be prevented.

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Rental ski shop practice — Sampling and inspection of complete and incomplete alpine ski-binding-boot systems in rental applications

1 Scope

This document specifies a uniform method for the sampling and inspection of complete and incomplete alpine ski-binding-boot systems used in rental operations.

This document is intended for any facility which rents complete and incomplete alpine ski-binding-boot systems as for example when the skier owns the boots.

This document is not applicable for alpine touring ski-binding-boot systems.

This document is not applicable for complete and incomplete alpine ski-binding-boot systems which are rented for 15 days or more.

NOTE 1 A period of less than 15 days is common for equipment being rented.

NOTE 2 ISO 11088 gives a method for testing if the equipment is owned or rented for 15 days or more.

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 11088:2018, *Alpine ski/binding/boot (S-B-B) system — Assembly, adjustment and inspection*

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

3 Terms and definitions

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

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

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

system

<alpine ski> one ski, one boot and one binding, designed to perform a retention and a release function

3.2

complete ski-binding-boot-system

ski-binding-boot-system where all the components are provided by the rental facility

3.3

incomplete ski-binding-boot system

ski-binding-boot system where some components (boot or ski/binding) are owned by the customer

3.4

system binding

binding that is slid onto a pre-mounted or integrated track without drilling

3.5

pre-mounted binding

binding that is already mounted on the ski before being delivered to the shop

3.6

interchangeable

applies to the free exchange of boots within a rental inventory without testing each new combination of system components

3.7

non-interchangeable

applies to the establishment of specific binding-boot combinations tested each time a new combination is created

3.8

reference binding

unit that is typical of the bindings in the rental inventory

3.9

reference boot

boot that is typical of the boots in the rental inventory

Note 1 to entry: For requirements, see [A.1.3](#).

3.10

manufacturer pre-mounted

combination of new skis and new bindings provided by the original equipment manufacturer that is ready to be fitted to boots

3.11

sealed

protected from damage by the original packaging of the manufacturer during transportation

3.12

indicator setting

setting displayed on the binding's release adjustment scale

3.13

initial indicator setting

release indicator setting derived from the binding manufacturer's adjustment chart

Note 1 to entry: The adjustment chart is based on ISO 11088:2018, Table B.1.

3.14

measured release moment

release value determined by the use of a specified test device

Note 1 to entry: For the purposes of this document, the different types of test devices are defined in [Annex A](#).

3.15

test result

<ski rental> median quantitative value of three repetitions of the same test

3.16

selected reference moment

nominal release moment supplied by the binding or test device manufacturer

Note 1 to entry: The range for the nominal release moment is derived from ISO 8061.

Note 2 to entry: In the case where an algorithm or a table is used to provide reference moments, either value may be used. Any difference in values is usually insignificant.

3.17

accepted inspection tolerance

maximum difference between the *measured release moment* (3.14) and the selected individual release limited for M_Z and M_Y to the release moments

Note 1 to entry: The theoretical limits for M_Z with $\pm 15\%$ or ± 3 Nm (whichever is higher) and M_Y with $\pm 15\%$ or ± 10 Nm (whichever is higher) are the base for making Table B.1. The long experience shows that using the table values avoids many errors and is easier to explain to customers.

Note 2 to entry: The release moments are given in ISO 11088:2018, Table B.1, one line above/below of the reference moments.

3.18

correction value

value added to or subtracted from the initial indicator setting to bring the test result within the *accepted inspection tolerance* (3.17)

3.19

accepted re-adjustment tolerance

maximum difference between the *measured release moment* (3.14) at the *initial indicator setting* (3.13) and the selected individual release moment, limited for M_Z and M_Y to the release moments

Note 1 to entry: The theoretical limits for M_Z with $\pm 30\%$ or ± 6 Nm (whichever is higher) and M_Y with $\pm 30\%$ or ± 20 Nm (whichever is higher) are the base for making Table B.1. The long experience shows that using the table values avoids many errors and is easier to explain to customers.

Note 2 to entry: The release moments are given in ISO 11088:2018, Table B.1, one line above/below of the reference moments.

3.20

lubricated binding test

release test where the binding-boot-interfaces are lubricated

Note 1 to entry: Lubrication for example by liquid dish soap.

3.21

troubleshooting

<ski rental> binding manufacturer's recommendations or procedures for analysing system failure

3.22

corrective action

procedure other than readjustment of the indicator setting to include repair or replacement of system components

3.23

rental skier day

number of rental skiers processed through a ski rental facility in a 24 h-period

3.24

random sample

sample for which each component (preseason) or system (in-season) has an equal chance to be selected

3.25

deviation

<ski rental> difference between the measured release moment and the selected reference moment, expressed as a percentage of the selected reference moment

3.26

rental operation

providing a ski-binding-boot-system to a customer

3.27

seasonal rental

period of time of 15 days or more for which skiing equipment is rented

3.28

test device

<ski rental> tool to measure release moments of ski-binding-boot systems and that is according to ISO 11110

3.29

release

detachment of the boot from the ski by release of the mechanism that ensures the connection between boot and ski

Note 1 to entry: This release is only considered effective when all the loads due to the boot/ski connection have dropped to values which present no danger to the skier.

[SOURCE: ISO 9462:2014, 3.2]

4 Range classes

Range class I = accepted re-adjustment tolerance (see 3.19), ISO 11088:2018, Table B.1, two lines above/below of the selected reference moments. Range class I for children bindings with a reference moment M_Z of 20 Nm shall be treated as accepted inspection tolerance (see 3.17).

NOTE Range class I represents the range of acceptable values when a system is evaluated after having been used by the customer.

Range class II = maximum difference between the measured release moment (see 3.14) at the initial indicator setting (see 3.13) and the selected reference moment (see 3.16), limited for M_Z and M_Y to the release moments stated in ISO 11088:2018, Table B.1, three lines above/below of the selected reference moments.

Range class III = maximum difference between the measured release moment (see 3.14) at the initial indicator setting (see 3.13) and the selected reference moment (see 3.16), is more than three lines above/below of the selected reference moments in ISO 11088:2018, Table B.1.

5 Summary of practice

5.1 [Figure 1](#) gives an overview of the rental procedure.

5.2 Prior to the beginning of each season, boots and bindings shall be inspected for compatibility and interchangeability using a test device.

5.3 At specified intervals throughout the operating season, samples shall be taken from the rental inventory and inspected. Test results shall be used to determine sampling frequency and prompt corrective action when specified tolerances are exceeded.

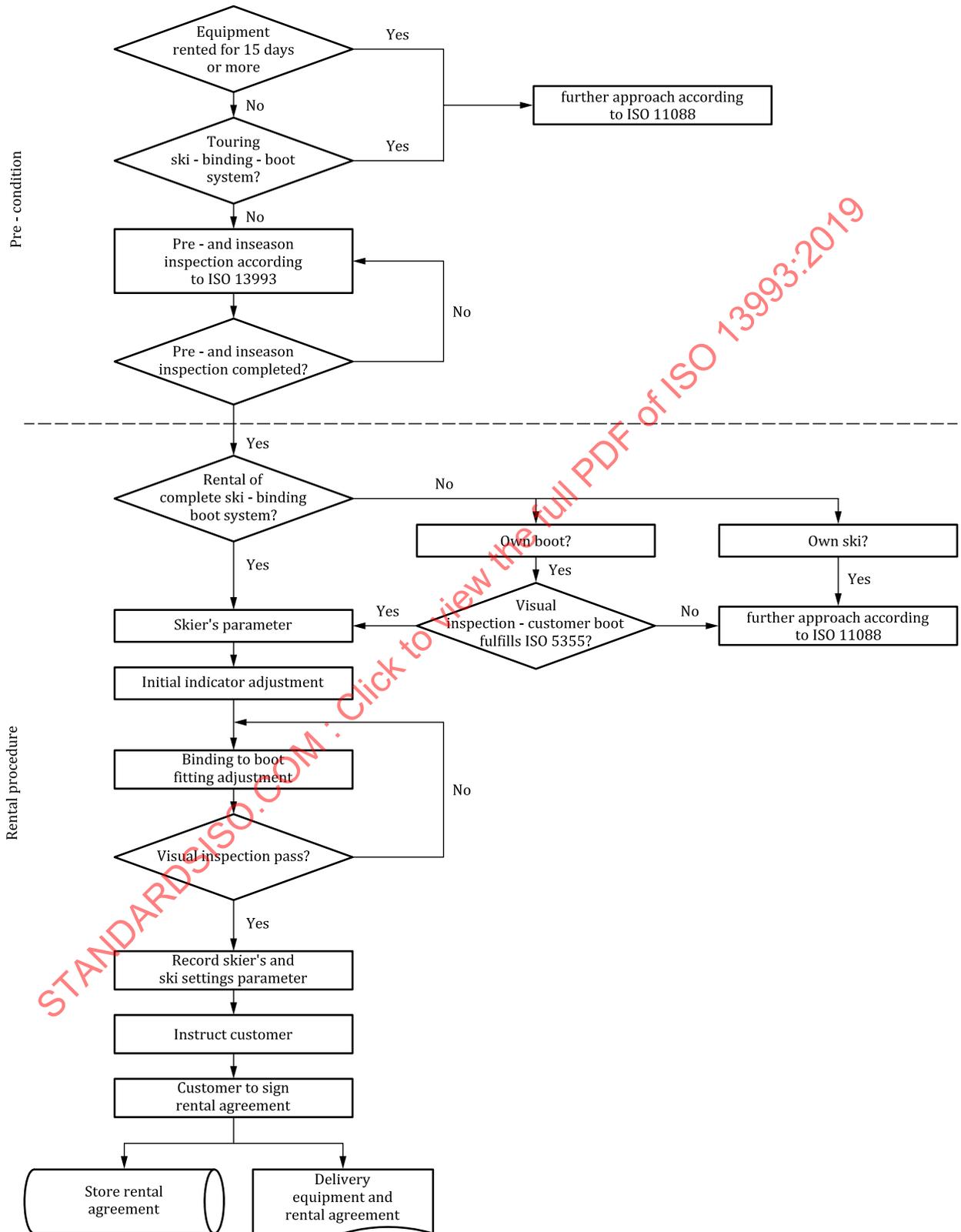


Figure 1 — Overview for the rental procedure

6 Equipment inspection requirements

6.1 Preseason inspection

6.1.1 Prior to the beginning of the season and whenever new rental inventory is added, an inspection shall be made according to [Table 1](#). Components that do not meet the specified tolerances shall be repaired, modified or replaced.

Table 1 — Test procedures for interchangeable systems

	NEW manufacturer pre-mounted (3.10) or NEW sealed (3.11) system bindings (3.4)	All USED bindings or NEW but not pre-mounted bindings and plates
Bindings	The sample of bindings shall be tested with a reference boot according to 6.1.7 . Reduced sample size according to 7.1.1 to 7.1.3 .	Inspection according to 6.1.7 .
Boots	NEW	USED
	Inspection according to 6.1.2 and 6.1.3 .	Inspection according to 6.1.2 and 6.1.4

6.1.2 A visual inspection for compatibility and interchangeability shall be performed on all boots in accordance with procedures recommended by the binding or boot manufacturer.

6.1.3 As a check on boots in the rental inventory, a single system sample, by make, model and size, shall be taken and tested in accordance with [Clause 8](#). If a boot generates a deviation other than the accepted inspection tolerance according to [Clause 4](#), all boots in the category shall be visually inspected and as a check, a 16 system (or less if 16 systems are not available) random sample shall be taken and tested in accordance with [Clause 8](#). If any boot in this sample generates a deviation other than the inspection tolerance according to [Clause 4](#), all remaining boots in the category shall be tested.

6.1.4 As a check on boots that have been accepted into the rental inventory in a prior season, a 5 % (not less than 16 nor more than 80 systems) sample shall be taken and tested in accordance with [Clause 8](#). If a boot generates a deviation other than the accepted inspection tolerance according to [Clause 4](#), then all boots in that make, model or age category shall be visually inspected and tested in accordance with [Clause 8](#). All remaining boots in the rental inventory shall also be visually inspected. If the reason for the deviation is found in another boot category, all boots in that category shall also be tested in accordance with [Clause 8](#).

6.1.5 Boots which meet the criteria for compatibility but do not meet the criteria for interchangeability shall be used in non-interchangeable rental programmes only.

6.1.6 Preseason tests for compatibility or interchangeability, or both, of the boot need not be made if the binding manufacturer's current operating procedures specifically state that the boot is not a functional component of the system and that such tests are unnecessary.

6.1.7 Bindings used in an interchangeable rental programme shall be inspected for appropriate function (see [A.1](#)) and valid release indicators in accordance with [Clause 8](#).

6.1.8 All bindings used in a non-interchangeable system shall be tested for appropriate function (see [A.1](#)) and valid release indicators

- a) whenever a new system is created,
- b) whenever called for as a result of the sampling procedure, or
- c) when recommended by the binding manufacturer.

6.1.9 Bindings which incorporate a single means of adjustment for all release directions shall be tested in either twist or forward lean but need not be tested for both during the preseason inspection. However, a 5 % (but not less than 16 nor more than 80 systems) random sample shall be tested in both directions in accordance with [Clause 8](#). If a binding generates a deviation other than the accepted inspection tolerance according to [Clause 4](#), then a visual inspection shall be conducted on all bindings. All bindings, in any binding category in which a defective unit is found, shall be tested in accordance with [Clause 8](#).

6.2 In-season inspection

6.2.1 At regular intervals, as specified in [Clause 7](#), samples are taken from the rental inventory and evaluated in accordance with [Clause 8](#).

NOTE During the season, samples are regularly taken from the rental inventory and checked. The results of the tests determine the frequency of sampling and the corrective actions.

6.2.2 If a range class I deviation is detected in > 20 % of the systems in the sample (see [Annex B](#)), or if a single range class II deviation is detected, an increased frequency of sampling and corrective actions according to [7.2](#) are required.

6.2.3 If a range class II deviation is detected in the sample, the cause shall be identified, the entire rental inventory shall be inspected, appropriate corrections shall be made and additional sampling tests shall be made in accordance with [7.2](#).

Range class I deviations when detected should be corrected.

6.2.4 If a range class III deviation is detected in the sample, all pertinent procedures as defined by the binding manufacturer shall be reviewed, corrective action shall be taken and additional sampling tests shall be made in accordance with [7.2](#).

6.3 System inspection of incomplete ski-binding-boot system used with customer owned components

6.3.1 Any combination of incomplete ski-binding-boot-systems with customer owned components shall be assembled and tested in accordance with the procedures defined in ISO 11088 with the following exception: If the skier is offering his/her own boots for use with the shop's skis and bindings or offering his/her own ski/bindings for use with the shop's boots, then the equipment shall be assembled, adjusted and inspected in accordance with [6.3.2](#) or [6.3.3](#).

6.3.2 The equipment shall be assembled, adjusted, and inspected in accordance with normal rental procedures as defined in this practice, only if the boot provided by the customer fulfils ISO 5355 checked by visual inspection. If, visually checked, the boot shows excessive wear on its sole or the boot provided by the customer does not fulfil the requirements of the binding manufacturer, the boot-binding-system shall be tested before use.

6.3.3 The equipment shall be assembled, adjusted and inspected in accordance with normal rental procedures as defined in this practice, provided the equipment fulfils the requirements in [6.3.2](#) and the boot meets the specific requirements of the binding manufacturer.

7 Sampling requirements

7.1 Sample size

7.1.1 The sample size shall be $\geq 5\%$ of the rental inventory (see [Annex B](#)) but at least 16 systems. Equipment for seasonal rental is not included in this rental inventory and also not included in the output in [7.1.4](#).

7.1.2 If the rental inventory is less than 16 systems, the sample size is complete when the entire rental inventory has been inspected.

7.1.3 If the rental inventory is more than 1 600 systems, the sample size shall not be more than 80 systems.

7.1.4 The sample size shall be $\geq 5\%$ of the average daily rented systems (averaged on a weekly basis), if this average drops below 50 % of the rental inventory.

7.1.5 The sample size may be reduced based on the average rental skier days if rental output drops below 50 % a day over the sampling interval.

7.1.6 The sample is taken at any time during the sampling interval and may be spread over the period.

7.1.7 The sample systems shall be selected in the following order:

- a) at least 50 % of the sample consists of systems returned since last inseason inspection, highest use (most days out, largest number of rentals) first;
- b) systems used at least once since last preseason inspection, highest use (most days out, largest number of rentals) first;
- c) unused systems.

The total number of b) and c) shall be $\leq 50\%$ of sample size.

7.2 Sampling frequency and handling deviations

7.2.1 A sample of the size specified in [7.1](#) shall be taken every 7 days of operation (normal sampling).

7.2.2 If the sample exceeds the allowable number of range class I deviations (see [Annex B](#)) or contains a range class II deviation or a range class III deviation during normal sampling (7 days), a daily schedule shall be instituted. Daily sampling shall be continued until two consecutive samples are within the allowable number of range class I deviations.

7.2.3 After two consecutive weeks of normal sampling without exceeding the allowable number of range class I deviations, the facility shall institute a reduced sampling schedule of one sample per 14 days of operation.

7.2.4 If the sample exceeds the allowable number of range class I deviations (see [Annex B](#)) or contains a range class II deviation or a range class III deviation during the reduced sampling (14 days), a weekly schedule shall be implemented.

7.2.5 Facilities that have an average daily number of rental operations < 160 averaged on a weekly basis, may adopt an alternative procedure and sample, over the sampling interval, $\geq 5\%$ of average daily number of rental operations, and delay evaluation of the inspection results until a total number of 16 systems have been accrued. However, if a single range class II deviation or range class III deviation

is detected at any time, corrective action as described in [6.2.2](#) and [6.2.3](#) shall be taken. This alternative method shall be used with a normal (weekly) or daily sampling schedule but shall not be used for the reduced schedule as described in [7.2.1](#).

8 Sampling and inspection procedures

8.1 Preseason check

8.1.1 General

Perform all tests in accordance with [Annex A](#).

Subclauses [8.1.2](#) to [8.1.5](#) are applicable for binding-boot-systems that do not distinguish between left/right operation mode. If the binding-boot-systems distinguish between left/right operation, then the difference between inward and outward testing shall be within the tolerances given by the binding manufacturer.

8.1.2 Boot inspection

Unless otherwise specified by the binding manufacturer, boots shall be inspected in the following sequence.

- a) Select two reference bindings of the same model.
- b) Clean and lubricate both bindings where the boot will contact them.
- c) Adjust both bindings to obtain the test result as specified by the binding manufacturer using a typical boot of the sole length to be inspected.
- d) Clean the lubricant from one binding with a liquid dishwashing detergent or cleaner recommended by the binding manufacturer. Clean all contact points and clearly label the binding to indicate that it has been cleaned. Clearly label the remaining binding to indicate that it has been lubricated.
- e) Select all boots of a given sole length and visually inspect them as specified by the binding manufacturer.
- f) Make all necessary binding-boot-adjustments as specified by the binding manufacturer to accommodate the selected boots.
- g) Using the clean binding and the testing device, measure the twist value in one direction only for further comparison according to [8.1.2 k](#)).
- h) Using the clean binding and the testing device, measure the forward lean value for further comparison according to [8.1.2 k](#)).
- i) Using the lubricated binding and the testing device, measure the twist value(s) in both directions for further comparison according to [8.1.2 k](#)).
- j) Using the lubricated binding and the testing device, measure the forward lean value for further comparison according to [8.1.2 k](#)).
- k) Determine the relationship between the values measured in the lubricated and in the clean test by dividing the result in the lubricated test by the clean result in the test. If the quotient is $> 1,2$ or $< 0,8$, the system should be considered incompatible.

8.1.3 Boot evaluation

The results for each boot shall be evaluated in the following sequence.

- a) In each lubricated binding test, the inward and outward test results should be within the accepted inspection tolerance centred on the value as specified by the binding manufacturer in [8.1.2 c\)](#).
- b) The test result in twist observed in the clean binding test should be within the limit for readjustment centred on the twist release value as specified by the binding manufacturer in [8.1.2 c\)](#).
- c) The test result observed in the lubricated binding test in forward lean should be within the accepted inspection tolerance centred on the twist release value as specified by the binding manufacturer in [8.1.2 c\)](#).
- d) The forward lean test result observed in the clean binding test should be within the limit for readjustment centred on the forward lean release value as specified by the binding manufacturer in [8.1.2 c\)](#).
- e) Remove any boot which does not satisfy [8.1.3 b\)](#) and [8.1.3 d\)](#), and which cannot be corrected, from rental inventory.
- f) Do not use in an interchangeable ski-binding-boot-system any boot which does not satisfy [8.1.3 a\)](#) and [8.1.3 c\)](#), and which cannot be corrected.

8.1.4 Binding inspection

The bindings shall be inspected in the following sequence.

- a) Select a reference boot with sole length as specified by the binding manufacturer or that is commonly used with equipment. Bindings to be used in a non-interchangeable rental programme shall be inspected using the boot to which they are to be matched.
- b) Clean and then lubricate the boot.
- c) Adjust the binding's indicator to the setting as specified by the binding manufacturer or to the setting that will be pre-set and used during the season.
- d) Exercise the binding-boot-system through the range of elastic travel as specified by the binding manufacturer. This exercise shall include at least one release of the boot or plate from the binding in each direction of release as specified by the binding manufacturer.
- e) Using the release testing device, observe the test result in each direction of release specified by the manufacturer.
- f) Make all other inspections as specified by the binding manufacturer.

8.1.5 Binding evaluation

The test results for each binding shall be evaluated in the following sequence.

- a) The inward and outward test results in twist shall be within the accepted inspection tolerance.
- b) The test results in each direction of release shall be within the accepted inspection tolerance.
- c) Remove any binding which does not satisfy [8.1.5 a\)](#), [8.1.5 b\)](#) and the requirements of the binding manufacturer from rental inventory unless it can be repaired or a correction value is applied. Consult the binding manufacturer to be certain that any correction procedure meets the manufacturer's criteria.

8.2 In-season routine sampling and inspection

8.2.1 General

The sampling of the rental inventory shall be in accordance with [Clause 7](#). All tests shall be performed in accordance with [Annex A](#).

8.2.2 Preconditioning for sample inspection

A visual inspection and preconditioning, in accordance with the requirements of the binding manufacturer shall be made each time the equipment is rented and prior to sample testing. All procedures routinely performed immediately prior to equipment rental shall be performed prior to sample inspection of such equipment. All procedures recommended to be performed by the end-user shall be performed prior to sample inspection of returned equipment.

8.2.3 Sample inspection

Each sample system shall be inspected in the following sequence.

- a) Make a visual inspection of all binding-to-boot fitting indicators.
- b) Observe the test result in forward lean.
- c) Inspect the forward lean elastic travel in accordance with [A.1](#).
- d) Observe the test result in twist (one direction only).
- e) Inspect the elastic travel in all other directions of release in accordance with [A.1](#).
- f) Perform all other tests and inspections required by the binding manufacturer.

8.2.4 Evaluation

The test results of the sample inspection shall be evaluated in the following sequence.

- a) Classify the test results that exceed the accepted inspection tolerance by deviations. Count any system which fails a functional or visual inspection as a range class I deviation.
- b) Note any range class II deviation or range class III deviation in the sample and take corrective action as defined in [6.2.3](#) and [6.2.4](#), and resume sampling in accordance with [8.2](#).
- c) Note the percentage of range class I deviations in the sample and determine the pass-fail status of the sample as defined in [6.2.2](#).
- d) Determine the schedule for future sampling based on the inspection results and the criteria defined in [7.2](#).

9 Report

An adjustment report is established by the ski shop and delivered to the user. It shall contain at least the following information:

- a) skier's parameters (age, mass, height);
- b) indicator setting;
- c) correction factor, if used;
- d) binding manufacturer with binding model or inventory number;
- e) boot manufacturer with boot model, sole length and specific sole configuration, if applicable;

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- f) ski manufacturer with ski length or inventory number;
- g) skier type and release preference requested by the skier;
- h) further modifications requested by the skier;
- i) additional information on the rental shop's specific process in regard to this document, i.e. ISO 13993:2019;
- j) warning that the equipment and the rental process cannot provide full protection from injury if an accident occurs;
- k) indication of which component is owned by the skier, if applicable;
- l) testing conducted in accordance with ISO 11088.

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Annex A (normative)

Functional and release test requirements

A.1 Description of functional inspections

A.1.1 Test for elastic travel and recentering

The assembly shall be modified to check that the boot or plate can travel a distance as specified by the binding manufacturer and return freely to the centre. This test should be made in all directions of release and in a manner as specified by the binding manufacturer.

A.1.2 Test for symmetrical release

The system should be tested for twist release in both the inward and outward directions with a device of the type specified in ISO 11110.

NOTE This is not necessary for in-season inspection.

A.1.3 Test of binding-boot-compatibility

The boot shall be of a shape, composition, construction and condition acceptable to the binding manufacturer. Functional inspections specified by the binding manufacturer determining the compatibility of the boot and the binding shall be performed.

If no functional inspection procedures are specified by the binding manufacturer, a functional inspection should be made to determine the difference in release torque between a clean, dry system and the same after lubrication of all binding-boot-interfaces. This inspection shall be made in all directions of release specified by the binding manufacturer, using a device of the type specified in ISO 11110.

If there is reason to believe that the binding-boot interface has been contaminated with a lubricant prior to the tests, a common dishwashing soap or detergent may be used, provided all surfaces are flushed with clean water afterward.

A.2 Release torque inspection

A.2.1 Tests for twist release

This test is made to determine the moment required to release the binding in twist about an axis at right-angles to the plane of the boot sole. Test is carried out using a device of the type described in ISO 11110. Test results may be used to calibrate the binding to the desired release moment or to validate the indicator and determine an appropriate indicator correction value, if appropriate. Tests may be carried out on the entire release system using a reference boot (pre-season tests only). No correction value should be applied until all troubleshooting procedures recommended by the binding manufacturer have been carried out.

A.2.2 Test for forward lean release

This test is made to determine the moment required to release the binding in forward lean. It is carried out using a device of the type described in ISO 11110. If no independent means is provided to adjust the forward lean release, this test is used to check that the ratio of twist to forward lean is as specified by the manufacturer. Test results may be used to calibrate the binding to the desired release moment or to