



TC8³

International Standard

ISO

5901

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Alpine skis — Geometry — Terms, definitions and measuring conditions

Skis alpins — Géométrie — Termes, définitions et conditions de mesure

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5901 was developed by Technical Committee ISO/TC 83, *Sports and recreational equipment*, and was circulated to the member bodies in January 1978.

It has been approved by the member bodies of the following countries :

Austria	Italy	South Africa, Rep. of
Egypt, Arab Rep. of	Mexico	Turkey
France	New Zealand	USA
Germany, F. R.	Poland	USSR
India	Romania	Yugoslavia

No member body expressed disapproval of the document.

Alpine skis — Geometry — Terms, definitions and measuring conditions

1 Scope and field of application

This International Standard defines the terms required to describe the geometry of alpine skis as well as the conditions for measuring the geometrical characteristics.

A standard set of definitions and methods of measurement is needed to allow manufacturers, consumers, retailers and scientists to use a common language in describing alpine skis.

2 Definitions

2.1 General terms

2.1.1 ski tip : The front point of the ski.

2.1.2 ski tail : The rear edge of the ski.

2.1.3 side cut : The line describing the curved portion of the side contour between the shoulder (see 2.3.2) and the heel (see 2.3.4) of the ski and defined by the bottom edge.

2.1.4 side geometry : The form of the curve bordering the running surface and defined by the bottom edge.

2.2 Terms related to length measurements (see figure 1)

2.2.1 developed length, L_N : Length of the running surface measured between the ski tip and the ski tail. This dimension, rounded to common increments, is used to indicate the nominal ski length or ski size.

2.2.2 projected length, L_P : Length of the projection of the ski, measured between the ski tip and the ski tail with the ski body pressed against a plane surface.

2.2.3 contact length, L_C : Distance between the two contact lines where a 0,5 mm feeler gauge intersects the running surface, with the ski body pressed against a plane surface.

2.2.4 shovel length, L_S : Projected length of the forward turnup, measured from the tip to the contact line where a 0,5 mm feeler gauge intersects the running surface with the ski body pressed against a plane surface.

2.2.5 tail turnup length, L_T : Projected length, measured from the ski tail to the contact line where a 0,5 mm feeler gauge intersects the running surface with the ski body pressed against a plane surface.

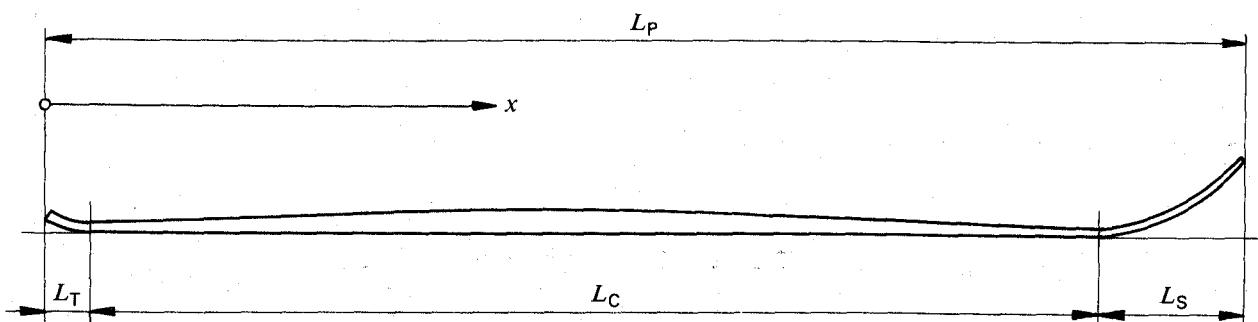


Figure 1 — Symbols related to ski length

2.2.6 *x* coordinate for ski measurement : Coordinate used to indicate the location of any particular point on the flattened ski in the longitudinal direction with the origin at the ski tail, for example x_{bH} , x_{bM} , x_{bV} (see figure 2).

2.3 Terms related to width measurements (see figure 2).

2.3.1 width of the ski, b : Width measured perpendicular to the centre line on the running surface.

The coordinate x should be written as an index of b .

For example : $b_{123} = 6,5$ cm; i.e. the width of the ski at a distance of 123 cm from the ski tail is 6,5 cm.

2.3.2 shoulder of the ski, b_V : Maximum width of the running surface in the shovel section of the ski.

2.3.3 waist of the ski, b_M : Minimum width of the running surface in the central section of the ski.

2.3.4 heel of the ski, b_H : Maximum width of the running surface in the tail section of the ski.

2.3.5 side camber, w : Maximum distance from a line drawn between the widest points of the ski and the side of the ski.

2.3.6 length of the side cut, m : Distance between the lines at the b_H and b_V dimensions.

2.3.7 waist index, t : Ratio of the side camber w to the length of the side cut m :

$$t = \frac{w}{m}$$

2.3.8 taper, v : Half of the difference between b_V and b_H :

$$v = \frac{b_V - b_H}{2}$$

2.4 Terms related to height and thickness measurements (see figure 3).

2.4.1 thickness of the ski, s : Thickness, measured perpendicular to the running surface.

The coordinate x should be written as an index of s .

For example : $s_{123} = 1,6$ cm; i.e. the thickness is 1,6 cm at a distance of 123 cm from the ski tail.

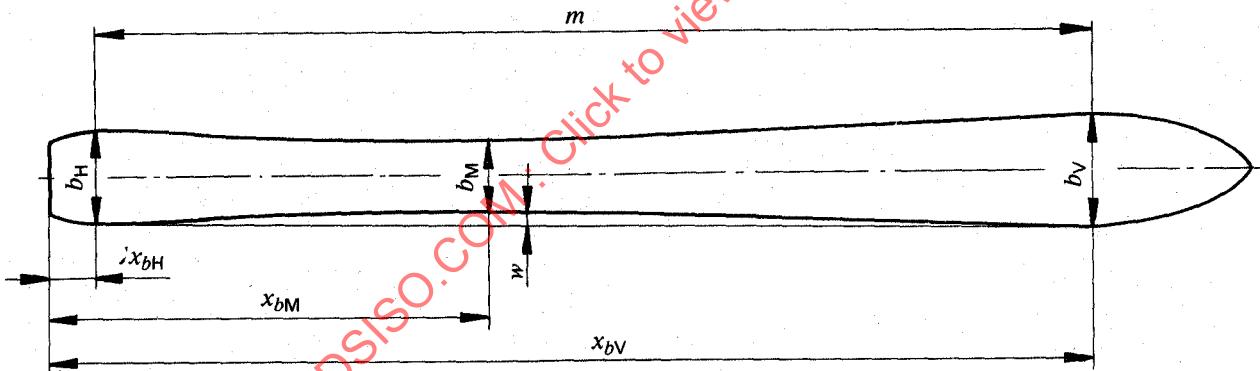


Figure 2 — Symbols related to ski width

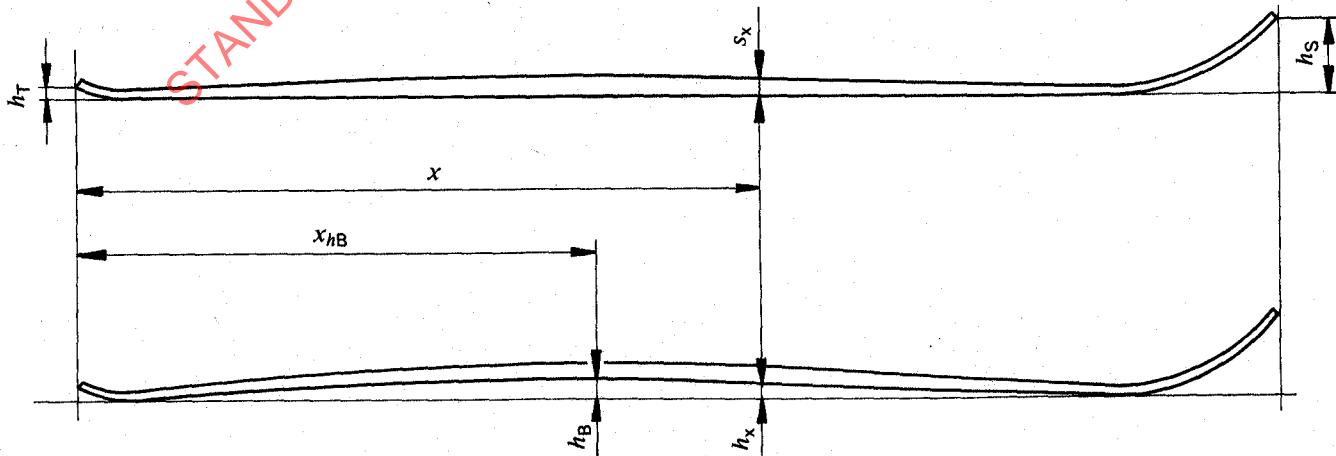


Figure 3 — Symbols related to ski height and thickness

2.4.2 camber height, h : Distance between the running surface of the ski and a plane surface, measured with the ski resting freely under its own mass.

The coordinate x should be written as an index of h .

For example : $h_{123} = 1,2$ cm; i.e. the camber height is 1,2 cm at a distance of 123 cm from the ski tail.

2.4.3 bottom camber, h_B : Maximum camber height measured at the highest point of the running surface.

2.4.4 tip height, h_S : Height of the underside of the tip measured from a plane surface with the ski body pressed against the surface.

2.4.5 tail height, h_T : Height of the underside of the tail from a plane surface with the ski body pressed against the surface.

3 Samples

All measurements specified in this International Standard shall be taken from a finished manufactured ski without any fittings and which has been conditioned at a temperature of 23 ± 5 °C for at least 2 h.

4 Tolerances

Data published by the manufacturer with reference to this International Standard shall be subject to the following tolerances :

length measurements $\pm 1,0$ cm

width measurements $+ 0,05$ cm
 $- 0,15$ cm

thickness measurements $+ 0,05$ cm
 $- 0,12$ cm

height measurements $\pm 0,5$ cm

bottom camber $\pm 40\%$

5 Test report

The test report shall include the following particulars :

- reference to this International Standard;
- complete identification of the ski (brand, model designation, size and manufacturer's registration number);
- any deviation from this International Standard with the reason for the deviation.

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