



Designation: F 1107 – 9504

Standard Terminology Relating to Snowboarding¹

This standard is issued under the fixed designation F 1107; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This terminology covers terms used to describe the geometry and common hardware used on snowboards (skis), snowboard bindings, and snowboard boots.

2. Significance and Use

2.1 A standard set of definitions is needed to allow producers, dealers, users, consumers, general interest individuals, and consultants to use a common language for describing snowboardskis, snowboard bindings, and snowboard boots.

3. Terminology

3.1 *Definitions* (Refer to Figs. 1-6):

asymmetrical—this refers to a snowboard-ski shape that does not have a longitudinal line of symmetry. Heel-side and toe-side sidecuts shaped and offset differently from each other; they are not mirror images of each other. This typically requires that a different snowboard-ski be utilized for regular-foot (left foot forward) and goofy-foot (right foot forward) snowboard binding mounting positions (Fig. 5).

asymmetrical offset, O_s , O_{th} —the distance along the longitudinal axis that each side of an asymmetrical shape is offset from the other side. Offset may be different at the shoulder and heel (Fig. 5).

chord length—(LTS) the straight-line distance between the snowboard-ski tail and the snowboard-ski tip with the snowboard-ski pressed flat to a plane surface to take out the camber (Fig. 2).

DISCUSSION—Either method of measurement, at the manufacturer's discretion, may be used to indicate nominal snowboard-ski length or snowboard ski size when rounded to common increment.

contact length—the difference between the projected length, L_p , and the sum of $L_t + L_s$ or $L_c = L_p - (L_t + L_s)$ (Fig. 1).

contact surface area—the product of the average width times the contact length expressed quantitatively as follows (Fig. 4):

$$A_c = \frac{b_h + 2b_m + b_v}{4} (L_c)$$

developed length, $\neq LN$ —the bottom contour length from the snowboard-ski tip to the snowboard-ski tail, sometimes called the material length (Fig. 2).

edge—a sharp, narrow, steel surface that is attached throughout the length of the sidecut on the bottom edge of the snowboard-ski.

free bottom camber, H_f —the height of the running surface from a vertical plane surface measured at the highest point, with the snowboard-ski held vertically laterally on edge, free from the effect of the snowboard-ski weight.

heel (of the snowboard-ski)—the widest part of the tail section of the snowboard-ski (Fig. 4).

hybrid asymmetrical—this refers to a snowboard-ski shape that is asymmetrical from side to side but symmetrical from tip to tail, allowing the same board to be used by both regular-foot and goofy-foot riders by reversing the direction of travel, but retaining the non-mirror image sidecut shapes of a full asymmetrical (Fig. 6).

insert—a reusable, threaded attachment point fixed permanently in the snowboard-ski at the time of manufacture, used to mount the bindings to the board. It is typically arranged in a pattern corresponding to a particular binding manufacturer's pattern.

leash—a cord-like device wherein one end is attached to the top surface of the snowboard-ski, or the binding, and the other end provides an apparatus to attach to one of the rider's legs.

projected length, L_p —the length of the projection of the snowboard-ski, measured between the snowboard-ski tip and the snowboard-ski tail with the snowboard-ski unweighted on a plane surface (unweighted meaning solely under the influence of its own weight) (Fig. 1).

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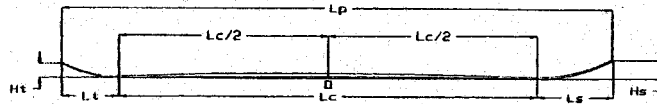


FIG. 1 Side View of Snowboard

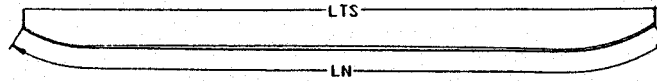


FIG. 2 Side View of Snowboard, Pressed Against a Flat Surface

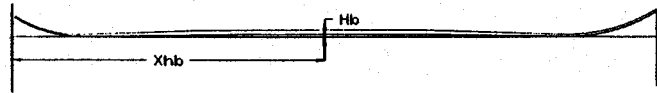


FIG. 3 Side View of Snowboard, Relaxed

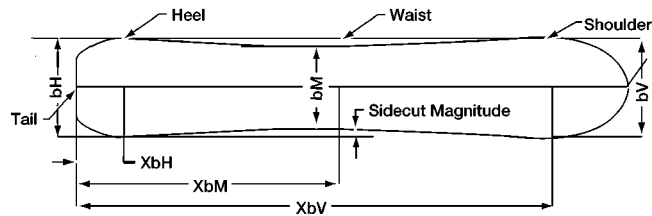


FIG. 4 Top View of a Symmetrical Snowboard

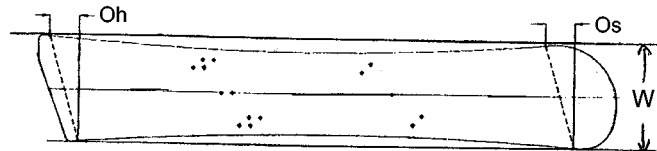
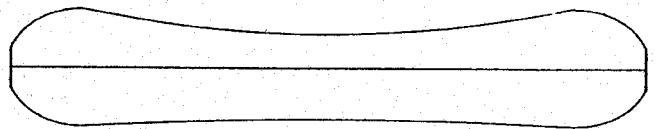


FIG. 5 Top View of an Asymmetrical Snowboard



NOTE 1—Heelside sidecut deeper (exaggerated).

FIG. 6 Bottom View of an Asymmetrical Snowboard

- **running surface**—the entire bottom surface of the snowboard-ski bordered ordered by the side geometry.
- **self-weighted bottom camber, H_b** —the height of the running surface from a plane surface, measured at the highest point, with only the influence of the snowboard-ski weight (Fig. 3).
- **shovel length, L_s** —the projected length of the forward turn-up, measured from the tip to the contact point where a 0.1-mm feeler gage intersects the running surface with the snowboard-ski unweighted on a plane surface (Fig. 1).
- **shovel surface area**—that surface forward of the shovel contact point. The shovel contact point is located at L_s from the tip.
- **sidecut**—that line describing the curved portion of the snowboard-ski contour limited by the lines at the b_H and b_V dimensions and defined by the bottom edge (Fig. 4).
- **sidecut geometry**—the configuration of the curve bordering the running surface and defined by the bottom edge (Fig. 4).
- **sidecut magnitude**—the maximum distance from a line drawn between the widest points of the snowboard-ski and the edge of the snowboard-ski (Fig. 4).
- **snowboard bindings (feet retainers)**—apparatuses that attach the rider's feet to the snowboard-ski. The ~~two~~ three types of snowboard bindings have been identified as follows:
 - *hard boot snowboard bindings*—these are designed to be used with hard boots, retaining the boots by means of attaching the boot sole to the binding.

soft boot snowboard bindings—these are designed to be used with soft boots, retaining the boots by means of binding straps across the toe and ankle areas.

step-in snowboard bindings—these are designed to be used with boots designed specifically for that binding. The boot and binding interlock by mechanical means.

snowboard boots—footwear appropriate for use with snowboard skis and snowboard bindings. The two ~~three~~ types of snowboard boots have been identified as follows:

hard snowboard boots—plastic shell alpine ski-type outer boots with the inner boot consisting of an alpine ski boot-type bladder for comfort and warmth. They are designed to be used with hard boot snowboard bindings.

soft snowboard boots—outer boots typically consisting of a rubber or plastic lower portion and a leather or nylon upper portion; the inner boot consists of an alpine ski boot-type bladder for warmth and support. They are designed to be used with soft boot snowboard bindings.

step-in snowboard boots—these are defined to be used with bindings designed specifically for that boot. The boot and binding interlock by mechanical means.

snowboard ski—a single plane device ridden with a sideways stance with the feet somewhat perpendicular to the longitudinal axis of the device. The user slides on snow similar to the way a skier does, except with both feet attached to a single, wide ski.

DISCUSSION—The previous revisions of this terminology standard referred to a snowboard as a snowboard ski. The term snowboard and snowboard ski are identical in their meanings. Certain organizations continue to use the term snowboard ski.

snowboard ski afterbody—that portion of the snowboard ski aft of Point *O*, a distance of $L_c/2$ (Fig. 1).

snowboard ski body—the portion of the snowboard ski within the dimension of L_c (Fig. 1).

snowboard ski body center—Point *O*, located a distance of $L_c/2 + L_t$ from the tail of the snowboard ski (Fig. 1).

snowboard ski forebody—that portion forward of Point *O*, a distance of $L_c/2$ (Fig. 1).

snowboard ski longitudinal centerline—(1) *symmetrical snowboard skis*: the longitudinal axis of symmetry; (2) *asymmetrical snowboard skis*: the longitudinal line that passes through the center of the insert pattern or through the manufacturer-indicated centers of binding mount areas on snowboard skis without inserts.

snowboard ski shoulder—the widest point in the shovel section of the snowboard ski (Fig. 4).

snowboard ski tail—the extreme rear edge of the snowboard ski (Fig. 4).

snowboard ski tip—the extreme forward point of the snowboard ski (Fig. 4).

snowboard ski width, W (Fig. 5)—the horizontal perpendicular distance between two vertical parallel planes, placed on either edge of the snowboard ski, parallel to the longitudinal centerline of the snowboard ski.

symmetrical—this refers to a snowboard ski shape that has a longitudinal line of symmetry, thereby allowing a single board to be used for both regular-foot and goofy-foot binding mounting positions (Fig. 4).

tail height, H_t —the height of the underside of the tail from a plane surface with the snowboard ski unweighted on a plane surface (Fig. 1).

tail length, L_t —the projected length of the tail turn-up, measured from the snowboard ski tail to the contact point where an 0.1-mm feeler gage intersects the running surface of the snowboard ski resting unweighted on a plane surface (Fig. 1).

tail surface area—that surface from the tail contact point aft. The tail contact point is located L_t from the tail (Fig. 1).

taper—half of the difference between b_v and b_H or $(b_v - b_H)/2$ (Fig. 4).

tip height, H_s —the height of the underside of the tip from a plane surface with the snowboard ski unweighted (Fig. 1).

waist (of the snowboard ski)—the narrowest point of the snowboard ski body between the heel and the shoulder (Fig. 4).

X_{bH} , X_{bM} , and X_{bV} —the *X* coordinates of the locations of these respective widths of the snowboard ski measured from the tail of the snowboard ski (Fig. 4).

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