



Lie-Nielsen TOOLWORKS® INC.

Heirloom Quality Tools®

Bronze Edge Plane

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Made in Maine, USA, since 1981



WARNING: This product can expose you to lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Wash hands after handling.

Bronze Edge Plane

The soles of your Bronze Edge Plane have been hand lapped for flatness and squareness. Exactly square cuts are achieved by adjusting the angle of the blade in the mouth. A wider opening near the fence will produce an angle of less than 90°, near the outer edge, more than 90°. Start with the edge adjusted parallel to the mouth, and check your work for squareness.

To Shoot a Straight Edge: The bottom edge of the fence is milled parallel to the sole. If this distance is measured ($\pm 1/8$ ") and a straight edge is clamped to the work accordingly, long glue joints may be shot — when the fence contacts the straight edge, cutting stops. With appropriate fixturing, miters, tapers and other angles may be produced, as well as precise dimensioning of strips, veneer, etc.

Angles such as draft for patternmaking may be planed using a wedge shoe. Slight angles can be achieved with a build-up of tape. Shoes of the right thickness will permit precise edging and depth control of rabbets and grooves. If the fence marks light woods, cover with tape or affix a thin hardwood shoe, or polish.

Geometry: The blade is bedded at 15° with a 25° bevel, and is skewed in the body at 30°.

Blade Sharpening: The blade comes ready to use, but honing a secondary bevel of 5° will increase performance, help achieve a razor edge quickly, and improve edge life in hardwoods. For information on sharpening, we recommend David Charlesworth's video, *Plane Sharpening*, available via our website in both DVD and streaming formats.

Blade Adjustment: Loosen the cap. Holding the tool upside down with your thumb on the cap, sight down the sole and adjust the blade to be parallel to the sole. It will show as a black line. Adjust depth with the lever, and tighten the cap.

Materials: We use Manganese Bronze for the bodies. These castings are fully stress relieved, a process that removes inherent stresses and ensures that the tool will remain flat and true. Other parts are Brass and Steel.

The blade is A2 Tool Steel hardened to Rockwell 60-62, cryogenically treated and double tempered. Our heat treating technique ensures that the blade will take and hold a very fine edge for a long time. After heat treating, the blade is fully surface ground on the top, back, and cutting edge, giving a smooth, flat surface that will take a mirror finish very quickly. The 1/8" thickness provides solid, chatter-free cutting.

Maintenance: The Bronze bodies are lapped to a tolerance of .0015". Depending on how much use your tool gets, an occasional light sanding with 320 or finer wet/dry paper on a flat surface will keep the sole in as-new condition. A light oiling on the threaded rod and Brass adjuster nut will keep them moving freely. Many people like the patina that Bronze gets with age and use, but if you wish to keep the finish bright, a little brass polish is in order.

Guarantee: Materials and workmanship are guaranteed for the life of your tool. Call for repairs or replacement parts. We are available for advice if you ever have a problem using your tool.