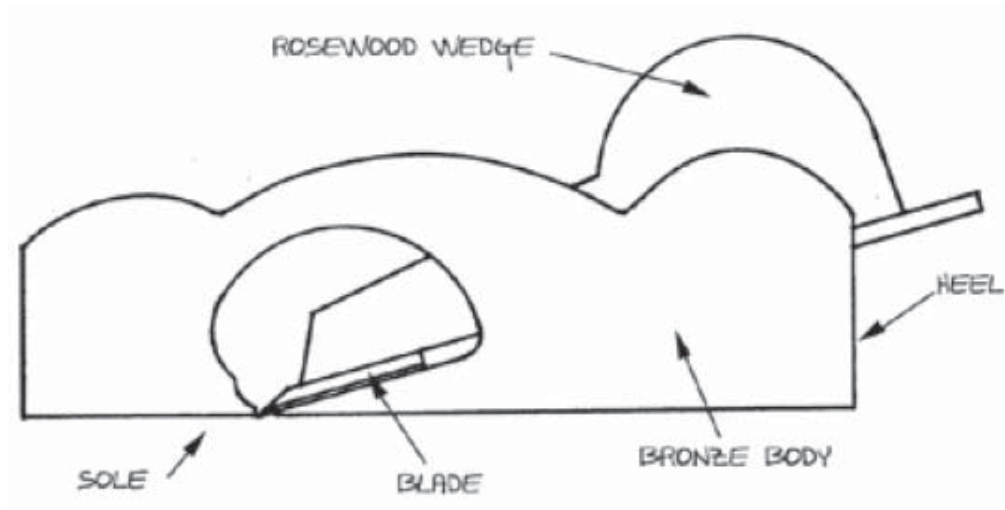


Lie-Nielsen Toolworks Product - Use and Care Instructions

Bronze 1/2 Inch Shoulder Plane



The Lie-Nielsen Bronze Shoulder Plane is based on a traditional wood-filled English shoulder plane, such as the Spiers or Norris. These were made in a number of sizes, the 1/2" being rather smaller than usual, but very handy.

This plane is particularly useful as a trimming tool, to fit shoulders, rabbets and dadoes. Therefore, these planes typically had very fine mouths. Ours is made to take a maximum shaving of .005". Each tool is tested before leaving the shop. If this mouth opening is too small for your work, lightly file a 45° bevel on the corner of the bronze casting immediately ahead of the blade bevel, allowing a larger chip to clear, until the shaving size suits.

Geometry: The blade sits in the body at 15°. It comes with a 25° flat ground bevel, making the included cutting angle 40°.

Blade Sharpening: The blade comes ready to use. Slight additional honing will increase performance. We often recommend a secondary bevel of 1° or 2°. This is most easily accomplished with a good honing guide. It will improve performance especially in hard woods. Further modifications of the bevel angles can be made to suit your style and the work.

Blade Adjustment: Tapping the heel of the plane with a wooden mallet or a block of wood will usually loosen the wedge. Set the blade depth and tap the wedge home snugly - but not too tight. The wedge has a tendency to drive the blade a little deeper. With practice, you will soon be able to set the blade quickly and accurately.

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. The body is filled with Indonesian Rosewood.

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The blade is A-2 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. 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.

Maintenance: The sole is lapped to .0015". Occasional hand lapping with fine wet/dry sandpaper (320 grit or higher) on a flat surface like a glass plate will help remove dings and keep it true. Occasionally wax the wood parts — but not the bottom of the blade wedge. If you wish, polish the bronze parts with any good brass polish — we use Never Dull or Brasso — or enjoy the patina that develops with age and use.