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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.

Lie-Nielsen TOOLWORKS® INC. Heirloom Quality Tools® Low Angle Adjustable Mouth Block Plane www.lie-nielsen.com

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> P. O. Box 9 • Route 1 Warren, Maine 04864

Made in Maine, USA, since 1981

Low Angle Adjustable Mouth Block Plane

Based on the Stanley No. $60\frac{1}{2}$, this versatile plane is useful for every sort of woodworking job and a pleasure to use. The movable shoe in front of the blade allows you to easily and precisely adjust the mouth opening: fine mouth for finishing work and thin shavings, or ample opening for rank cuts. For best results on end grain, set the blade and mouth fine. The body is $1-\frac{3}{4}$ " wide, $6-\frac{1}{4}$ " long, and ground flat and square to .001". The large, comfortable Bronze cap is tensioned with a $1-\frac{1}{2}$ " Brass spinwheel. Like our other block planes, the blade is adjusted with a captive nut for precise control with minimal backlash.

Geometry: The blade is flat ground at 25° and sits bevel up in the body at 12°, making the included cutting angle 37°. The low angle makes it an excellent choice for end grain.

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: Hold the tool in one hand with your fingers supporting the sole and your thumb on the cap iron just in front of the screw. Loosen the spinwheel and, with your thumb still holding the blade and cap, adjust the blade. Tighten the spinwheel. **Do not overtighten**. You should be able to adjust the blade after loosening the spinwheel about ¹/₄ turn. Make sure the mouth is adequately open before advancing the blade to avoid damaging the edge.

Mouth Adjustment: Hold the sole in the palm of your hand and loosen the brass locking screw. Adjust with the brass lever. Tighten the screw firmly, but **do not overtighten**.

Materials: The body is cast from Ductile Iron, a very strong alloy that will take a lot of abuse. These castings are fully stress-relieved, a process that removes inherent stresses and ensures that the tool will remain flat and true. The cap is Manganese Bronze. Other parts are Brass; the adjuster nut is Stainless Steel.

The blade is A2 Tool Steel hardened to Rockwell 60-62, cryogenically treated and double tempered. Our heat treating technique ensures 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 $\frac{1}{8}$ " thickness provides solid chatter-free cutting.

Maintenance: The body casting is ground dead flat. Occasional hand lapping with fine wet/dry sandpaper (320 grit or higher) on a flat surface will help remove dings and keep it true. The cap can be polished with any good brass polish, although many people like the patina that Bronze gets with age and use. Occasionally the tool should be disassembled, cleaned and moving parts oiled. A light oiling on the threaded rod and Brass adjuster will keep them moving freely. The blade should be kept lightly oiled to prevent rust, especially when the tool is not in use. We recommend Jojoba Oil, a plant based oil product that is non-toxic, odor-free and easy to use. Also, in our shop, we use a fine abrasive handblock to remove any light surface oxide from tool bodies and blades. Jojoba Oil and abrasive handblocks are available from us.

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.

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