



# Lie-Nielsen TOOLWORKS® INC.

*Heirloom Quality Tools®*

## Low Angle Jack Rabbet 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](http://www.P65Warnings.ca.gov). Wash hands after handling.

### Low Angle Jack Rabbet Plane

Our Low Angle Jack Rabbet Plane is an original design. This plane is a cross between our Bench Rabbet Plane (minus the tilting knob and handle) and our Low Angle Jack Plane—giving you a full-width cutting blade in a convenient, low-angle format. Great for raising panels, making long rabbets, working into corners, and large scale joinery.

**Geometry:** The blade sits in the body at 12°; it comes with a 25° flat ground bevel, making the included cutting angle 37°.

This tool is set up to take thin shavings (.008 - .010"). A tool with a large mouth will not perform as well on finish cuts. If you need a heavier cut, the tool can be easily modified by filing a chamfer on the leading edge of the mouth to allow a bigger shaving to pass.

**Blade Sharpening:** The blade comes ready to use, but honing a secondary bevel of 5-10° 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:** Blade adjustment is simple, direct and positive. Hold the tool in one hand with your thumb on the cap. Loosen the cap thumbscrew all the way, then tighten slightly until there is a little resistance. Adjust depth of cut with the blade adjuster nut. Sight down the base of the tool from the front, and judge depth and squareness of blade by the thin dark line of the blade showing against the sole as it protrudes. When you are done, snug the cap thumbscrew. **Do not overtighten.**

The blade is about .005" wider than the body. For general purpose work the blade should be just slightly proud of both sides of the tool. When registering into a corner, align the edge of the blade with the side of the body that you want it flush with (laying the tool on its side helps to do this quickly and accurately). To remove the blade, you must lift the back end and tilt it to the side to clear the sidewall of the tool.

**Lateral Adjustment:** The Low Angle Jack Rabbet Plane intentionally has very little lateral adjustment of the blade. This is an advantage. As you adjust

the blade, it will track squarely with the sole. The disadvantage is that you must sharpen the blade square. We recommend our Honing Guide to help with this task. If you find that you don't like this feature, you can grind the blade narrower to give more lateral play.

**Nicker:** Nickers cut cross grain fibers first to give a clean shoulder when rabbeting across the grain. The circular A2 nicker is retracted when the flat is at the bottom. Rotate to expose the edge as needed. When fully exposed the nicker protrudes .015". Occasionally, you may need to hone the back (flat) side of the nicker on a fine waterstone to sharpen.

**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, Steel and Cherry.

The blade is 3/16" A2 cryogenically treated Tool Steel, double tempered to Rockwell 60-62. 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 thick blade 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 Cherry handle and knob are oiled and buffed with wax to produce a natural finish. Wipe with oil as desired to refresh.

Tools with iron bodies should be kept lightly oiled or waxed to prevent rust. 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 the 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.