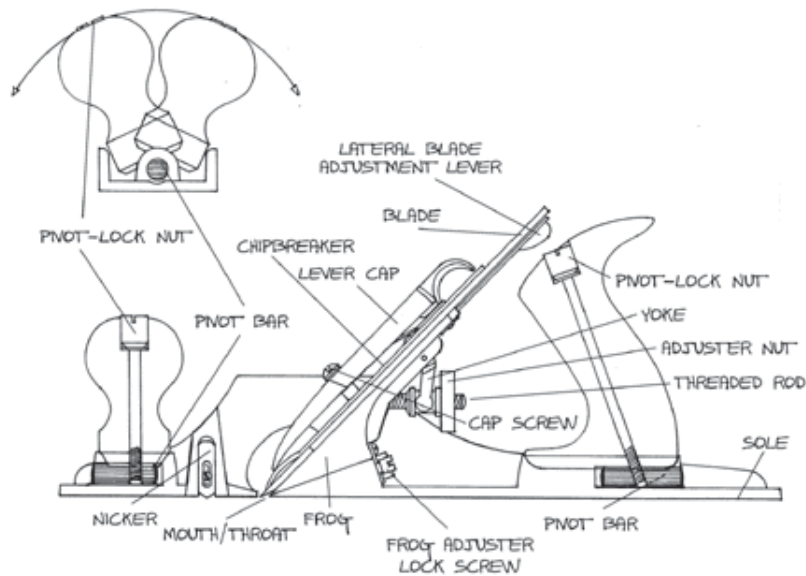


# Lie-Nielsen Toolworks Product - Use and Care Instructions

## Bench Rabbet Plane



A bench Rabbet plane is very handy for working large rabbets and tenons, while also doubling as a Jack Plane.

The Lie-Nielsen Bench Rabbet Plane is based on the Stanley Bedrock type planes. Bedrocks were Stanley's top line of Bench Planes, heavier and better made than the standard. In addition the construction of the frog is unique: a fully machined fit between frog and body, adjustable from the rear without having to remove the blade and cap. This allows you to easily change the mouth setting from a coarse to fine cut for difficult woods or fine smoothing passes. For heavy cuts adjust the frog back so the blade rests directly on the plane body.

**Geometry:** All Bench Plane blades are bedded at 45° with the bevel down, making the included angle of cut 45°.

**Blade Sharpening:** Your Lie-Nielsen Bench Plane is ready to cut wood out of the box. The blade is ground sharp at a 25° bevel. You may wish to give it a light honing before use. We recommend water stones used with a honing guide to provide good control. A secondary bevel of 1° or 2° helps achieve a razor edge. Lightly rounding the corners will prevent them marking your work.

**Mouth Adjustment:** To adjust the mouth opening loosen the two locking screws at the back of the frog, then turn the middle adjusting screw. Observe the opening in front of the blade. When it is correct, set the locking screws again. **Blade Adjustment:** Removing and re-installing the blade can be tricky. The easiest thing is to remove the cap screw first.

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The chip breaker is shaped to form a stiff spring with its forward edge tightly clamped against the blade. The flat on the front edge is ground and should fit tightly against the blade to prevent wood chips from getting between the chip breaker and blade. Occasional light honing will maintain the fit. Set the end of the chip breaker about 1/16" from the edge of the blade. To advance the blade, turn the adjuster screw clockwise. It is always a good idea to finish adjusting the blade by a forward adjustment to take up backlash and prevent the blade from moving. In order to be able to adjust the blade easily, do not overtighten the lever cap screw.

The blade is a couple of thousandths of an inch wider than the body - 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) or grind a little off the side of the blade to make it flush with both sides if you want.

**Nickers:** Nickers cut cross grain fibers first to give a clean shoulder when rabbeting across the grain. Adjust the nicker so it is a little deeper than your depth of cut. Retract the nicker when it is not needed. The nicker screw thread is 8-32.

**Tilting Handles:** Loosen the nut on top of the knob and handle to tilt to one side or the other. Tighten, but do not overtighten, nuts. Lubricate the pivot bar occasionally. **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 and frog are Manganese Bronze.

The blade is A-2 Cryogenically treated tool steel and tempered to Rockwell 60-62. 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. The .115" thick blade provides solid chatter-free cutting.

**Maintenance:** The bodies are surface ground flat and square to a tolerance of .0015". Depending how much use your tool gets, an occasional light sanding with 400 or finer wet/dry paper on a flat surface will keep the sole in as-new condition. Tools with iron bodies should be kept lightly oiled or waxed to prevent rust. A light oiling on the threaded rod and Brass adjuster and the lateral adjustment lever will keep them moving freely. The cap is made from Manganese Bronze. 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. Cherry knob and handle are finished with wiping varnish and should require no maintenance.

Guarantee: Materials and workmanship are guaranteed for the life of your tool.

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