



MANUAL FOR THE

MANUFACTURE OF TRADITIONAL RESIN TOOLS

PINE TAPPING KNIFE FOR POLE

 1. SMOTHER
2. SCRAPER
4. SMALL
5. PINE TAPPING KNIFE FOR POLE
6. MALETT
7. HALF-MOON
8. TRACER
9. POL



Description

Tool used in the bark spike phase that allows to make the spike in height from the third notch in a transversal way to the trunk removing a small piece of bark without tearing the wood and, later, to apply the resin stimulant. This action is called "pica de corteza a escoda".

Utilisation

It is used by slightly nailing the tool to the right side of the notch and making a small pull to the left, so that a small piece of bark approximately 3 cm high is removed in the case of the standard pine tapping knife, and less than 1 cm in the case of the rayon pine tapping knife.

Observations

This tool is an adaptation of the traditional pine tapping knife, although it lacks the axe-shaped finish, standing out for its lightness and for being easily attachable to the pole or shaft by means of two screws.

Materials

It consists of a flat piece made of forged and tempered steel. The end of this piece is folded in a U-shape (traditional pine tapping knife) or in a V-shape (rayon pine tapping knife) with an edge at the bottom, which allows the removal of the bark. This piece is joined by 2 screws to a rod or shaft made of aluminium, through a slot or slide, to regulate the angle of attack on the wood, and through another hole that acts as an axis (see card number 9).





PINE TAPPING KNIFE FOR POLE

Manufacturing instructions

1. Cutting

The starting point is a 5 mm thick steel plate of wear-resistant quality, which has been pre-cut with a laser cutting machine.

2. Roughing

A coarse disc grinding machine is used to quickly polish the workpieces.

3. Forging

The cut piece is worked in the forge at high temperatures until it acquires a red colour, in order to give it the right shape when hot by tapping. This forging is done manually or with a pile hammer.

4. Folding

The bending or folding is done by holding the piece to a mould designed for this purpose, where the edges are supported according to the angles indicated in the detail plans, being hot-pressed with the hammer until the desired shape is achieved. To facilitate the bending, a slight vertical cut is previously made to the piece by means of a grinding machine.

5. Drilling

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Once the steel piece is prepared, it is drilled with a special drill for hard metals, such as chrome-vanadium, cobalt or titanium carbide, holding it between two pieces of wood to reduce the amount of burrs, thus obtaining an easier finish. It is recommended to lubricate the drill as well as to perform the drilling before starting the hardening of the tool, because if the process is reversed the steel blade can be damaged.



6. Roughing

A coarse disc grinding machine is used to quickly polish the workpieces.

7. Tempering

The steel piece is heated again until it turns red. This piece is then placed for a few seconds in cold water, to finish the cooling or tempering process by immersing it again in oil for several minutes. In this way, the optimum hardness of the part is achieved.

8. Sharpening

This last treatment is carried out on the edge of the tool blade using a fine disc grinder or a sandstone.

MAINTENANCE: Light sharpening and cleaning with solvent and sand.



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