

SAN JOAQUIN FINE WOODWORKERS ASSOCIATION
Meeting Presentation Outline
December 18, 2004

Sandpaper and Sanding Techniques

- **Introduction (Roger)**
 - Introduction of Presenters
 - Overview of Presentation

- **Making Sense of Sandpaper (Roger)**
 - Industrial term is “Coated Abrasives”
 - Definition of “Coated Abrasive”
 - History of Sandpaper
 - Present major points of Strother Purdy article
 - Mr. Purdy was an editor for Fine Woodworking for 4 years
 - Article was published in issue #125, pages 62-67
 - Purdy quote “Sanding is necessary drudge work, improved only by spending less time doing it”
 - Key to choosing the right sandpaper is knowing how it works
 - Sandpaper works like a cutting tool
 - Under magnification, abrasive grains look like small irregularly shaped sawteeth
 - The grains are supported by a cloth or paper backing and two adhesive bonds
 - The make coat bonds them to the backing
 - The size coat locks them into position
 - As sandpaper is pushed across wood the abrasive grains dig into the surface & cut out minute shavings, called swarf in industry jargon
 - To the naked eye, these shavings look like dust, but magnified they look like the shavings produced by saws or other cutting tools
 - The spaces between the abrasive grains serve an important role - they work the way gullets on sawblades do, giving the shavings a place to go
 - That's why sandpaper designed for wood has what's called an open coat, where only 40% to 70% of the backing is covered with abrasive
 - Closed-coat sandpaper, where the backing is entirely covered with abrasive, is not appropriate for sanding wood because the swarf has no place to go and quickly clogs the paper

- **Stearated Sandpaper**
 - Some sandpaper is advertised as non-loading, or stearated
 - Stearated sandpaper is covered with a substance called zinc stearate (soap) which helps keep the sandpaper from clogging with swarf
 - Stearated sandpaper is only useful for sanding finishes and resinous woods.
 - Stearates are waxy and interfere with many water-based finishes and can cause fisheyes on the surface.

- **Grading Scales**
 - There are 3 major abrasive grit-grading systems
 - Coated Abrasives Manufacturers Institute (CAMI) which regulates the U.S. Standard Scale
 - CAMI graded sandpapers simply have numbers (show sample)
 - The Federation of European Producers Association (FEPA) regulates European sandpapers
 - FEPA sandpapers are identified by the letter P in front of the grit size (show sample)
 - The third system of grading is identified by the Greek letter mu, as in 30u (show sample)
 - Explain how Jerry at Woodworker Academy set up this sandpaper
 - Pass out grit-grading scale

- **Handheld Power Sander Basics (Chuck)**
 - Belt Sander
 - Random-orbital Sander
 - Finish Sander
 - Detail Sander

- **Oscillating Sander Basics (Ben)**

- **Using Abralon Sandpaper to Rubout Finish (Ben)**

- **Using a Neumatic Sanding Device (Roger, Chuck & Ben)**
 - Explain use in bandsaw box sanding (Roger)
 - Demonstration of homemade neumatic sander (Chuck)

- **Solving Difficult Sanding Challenges**
 - Demonstrate different solutions used by carvers (Chuck & Roger)
 - Talk about various sanding blocks, files, rasps, etc. (Ben, Chuck & Roger)

- **Questions**