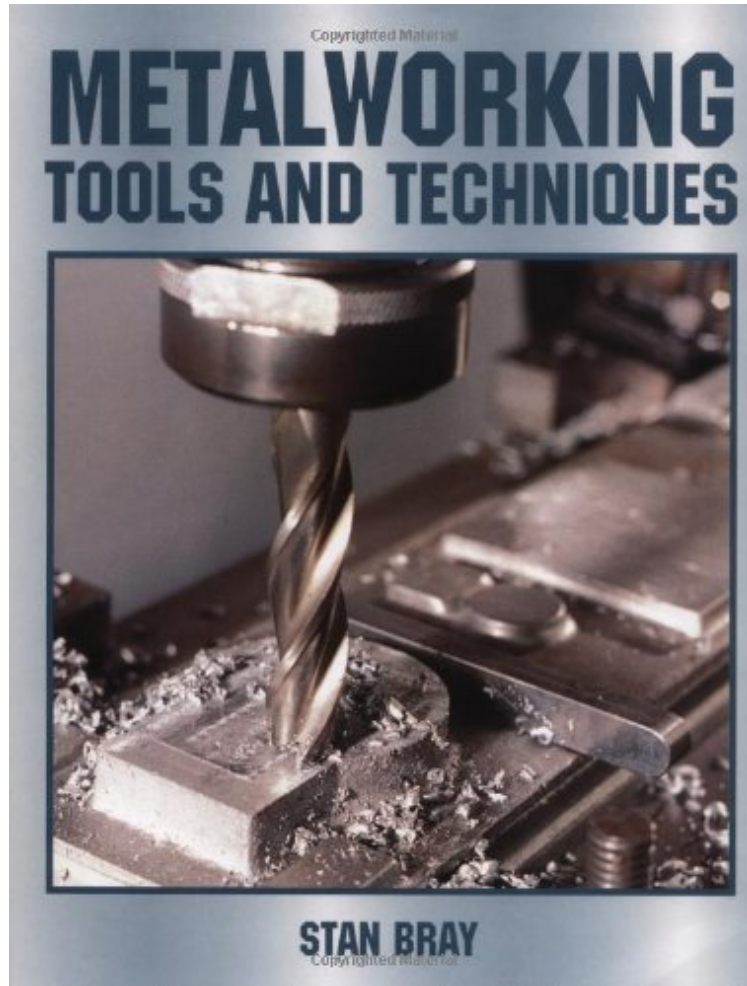


(Library ebook) Metalworking Tools and Techniques

# Metalworking Tools and Techniques

Stan Bray

DOC | \*audiobook | ebooks | Download PDF | ePub



DOWNLOAD



READ ONLINE

#2250294 in Books Crowood Press 2003-04-01 Original language: English PDF # 1 9.80 x .74 x 7.50l, 1.77  
#File Name: 1861265735176 pages | File size: 26.Mb

**Stan Bray : Metalworking Tools and Techniques** before purchasing it in order to gage whether or not it would be worth my time, and all praised Metalworking Tools and Techniques:

1 of 1 people found the following review helpful. I picked this up at the library and liked it so much that I wanted to have one ...By Thomas Davis I picked this up at the library and liked it so much that I wanted to have one to keep, so I bought this from . I've been machining for years (not professionally) and find that basic books like this often have lots of little tips that I might not have thought of. If youre looking for something like that, or if youre just getting started, I highly recommend it. This one is published in the UK, so some parts of it need a bit of translation for Americans. The English often use different words to describe materials, procedures, and lubricants; so sometimes you have to figure out what hes talking about; but its nothing that a little common sense or a quick internet search cant take care of. 20 of 21 people found the following review helpful. Good Metal Working Overview Tips By Joe Mooney Review of Metalworking Tools and Techniques by Stan Bray I read this book hoping it would help me decide if some

metalworking tools would be useful to me. I have absolutely no metalworking experience but I do have some proficiency as a woodworker. Before purchasing this book I used the "look inside" feature here on to peruse the table of contents. It seemed to me that a reasonably broad range of metalworking topics were covered, but none in great depth. The longest chapters are dedicated to "Working Materials" and "The Lathe" at 23 and 22 pages respectively. Although I was a bit concerned that it might be too "light" to be useful, I decided to take a chance and purchase the book regardless. I am very glad that I did. Mr. Bray is one of those rare authors able to cover technical material in a manner that is interesting, clear, and concise. He packs more information into a single page than the average writer can do in two or three. I found the book gave me a very good overview of small scale metalworking. It is well illustrated with many color photographs of very good quality (meaning the reader can easily "see" what the author intends you to - not always the case with metalworking books, especially some of the older ones that rely on black-and-white photos). What I like best about this book is its large number of practical tips and techniques. Mr. Bray is clearly very experienced, and knowledgeable. I learned a lot of useful stuff, which I was pleasantly surprised to find can also be applied to woodworking as well (more about that later). Following a loose summary of the chapters, tips and techniques I found most interesting. The "Working Materials" chapter describes how to use heat treatment to harden and soften metals and includes advice on blow torches (e.g. why the hottest torch doesn't necessarily provide the most heat), and setting up a simple "hot bench". The "Measuring and Marking Out" chapter has many interesting ideas including the use of a micrometer stand (shop-made) both for storage and to ease measuring small parts. The author shows two examples of simple shop-made depth gauges. He gives practical advice on alternative marking out media (in place of commercial dyes) such as using a felt tipped pen, thinned paint and copper sulphate solution (which is much more permanent than commercial fluids). He also presents an elegant center gauge that seems like a relatively easy tool to make. Lastly he shows a simple trick for marking straight parallel lines on cylinders (round bar or tubing) using just a piece of angle stock. I learned some very handy things in the "Cutting, Filing and Finishing" chapter. For example he explains why one should go slow when cutting with a hacksaw (fast strokes actually make the cut take longer, and ruin blades). He suggests mounting wooden handles on a file by heating the tang red hot and driving it into a wooden handle (that's something I've never heard of before, but I'm going to try it). He also advises the reader to avoid at all costs wire file-cleaning brushes. As a woodworker I've drilled thousands of holes using many different tools and techniques but I still managed to learn some useful things in the "Drills and Drilling" chapter. I've never had very good results using chain drilling, but I learned what I've been missing in this chapter (my most significant shortcoming was using just one size of drill bit, rather than two). For those who have access to a metal lathe, the author shows how to make counter bores, D-bits (for flat bottomed holes) and accurate reamers. I was surprised to learn how a center punched hole tends to push the drill bit off-center which reduces accuracy. The Lathe chapter gives a reasonable overview of the machine and its uses. (I went on to purchase Mr. Bray's book "The Compact Lathe" -- see my positive review of that book here on if you are interested). I found the final two chapters, covering "Milling" and "Tool Sharpening" a bit too short for my liking, almost as if the author had exceeded the publisher's page limit, or perhaps run out of time. The author departs from the style established in the first three quarters of the book where he gives advice and explains why the reader should follow it. In these final two chapters the author tends more towards simply giving the advice (for example he states "a scribe should never be sharpened on a grind wheel" and leaves it to the reader to guess why not). However, despite the last two abbreviated chapters, the majority of the book is excellent and thus I still recommend it as a good overview and introduction to metalworking. PS: Please note this book does not include measured drawings or step-by-step instructions for shop-made tools. The author assumes (quite reasonably) that a diagram or clear color photo of the tool (often in use) is enough information for the reader to construct his own copy. 1 of 1 people found the following review helpful. Great for beginners By Joseph A. Bird Great pictures and detailed explanation make for a good book for a beginner like me. When you're starting from scratch, it helps to get clear information and this book has it.

Metalworking is written for everyone inspired by the versatility of metal. It explains the many techniques that form the basics of this craft, from traditional methods of measuring and marking out to more recent practices such as use of adhesives and inert gases for joining metals. It includes advice on setting up a workshop and equipment, an introduction to the qualities of metals, working with the metal, drills and drilling, threads, shaping and joining metal, and machines.

About the Author Stan Bray has had his own workshop for most of his life and has made many tools, models and clocks. He is the founder and former editor of the magazine Model Engineers' Workshop, former editor of Engineering in Miniature. He is associate editor of Model Engineer where he has a regular column called "Bray's Bench".