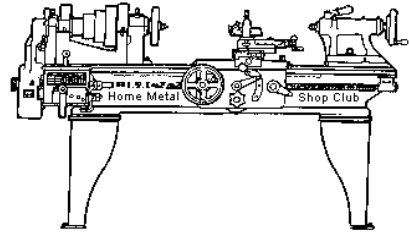




March 2024
Newsletter

Volume 27 - Number 03



<http://www.homemetalsclub.org/>

The Home Metal Shop Club has brought together metal workers from all over the Southeast Texas area since its founding by John Korman in 1996.

Our members' interests include Model Engineering, Casting, Blacksmithing, Gunsmithing, Sheet Metal Fabrication, Robotics, CNC, Welding, Metal Art, and others. Members enjoy getting together and talking about their craft and shops. Shops range from full machine shops to those limited to a bench vise and hacksaw.

If you like to make things, run metal working machines, or just talk about tools, this is your place. Meetings generally consist of **general announcements**, an **extended presentation** with Q&A, a **safety moment**, **show and tell** where attendees share their work and experiences, and **problems and solutions** where attendees can get answers to their questions or describe how they approached a problem. The meeting ends with **free discussion** and a **novice group** activity, where metal working techniques are demonstrated on a small lathe, grinders, and other metal shop equipment.

President <i>Vacant</i>	Vice President <i>Ray Thompson</i>	Secretary <i>Joe Sybille</i>	Treasurer <i>Joe Sybille</i>	Librarian <i>Ray Thompson</i>
Webmaster/Editor <i>Dick Kostelnicek</i>	Photographer <i>Vacant</i>	CNC SIG <i>Martin Kennedy</i>	Casting SIG <i>Vacant</i>	Novice SIG <i>John Cooper</i>

This newsletter is available as an electronic subscription from the front page of our [website](#). There are over 1027 subscribers located around the world.

Visit us on YouTube to view videos made by club members at [Our YouTube Channel](#) .

About the Upcoming 13 April 2024 Meeting

The next general meeting will be held 13 April 2024 at 12:00 P.M. (Noon) in person at TxRxLabs, 6501 Navigation Blvd., Houston, Texas 77011 and broadcast on-line at Zoom.us. Log-in credentials are as follows: Meeting ID = 854 4849 2410 Passcode = 765689. Rich Pichler will continue his series on tool sharpening.

General Announcements

The HMSC has a large library of metal shop related books and videos available for members to check out at each meeting. These books can be quite costly and are not usually available at local public libraries. Access to the library is one of the many benefits of club membership. The club has funds to purchase new books for the library. If you have suggestions, contact the [Librarian Ray Thompson](#).

We need more articles for the monthly newsletter! If you would like to write an article, or would like to discuss writing an article, please contact the [Webmaster Dick Kostelnicek](#). Think about your last project. Was it a success, with perhaps a few 'uh ohs' along the way? If so, others would like to read about it. And, as a reward for providing an article, you'll receive a free year's membership the next renewal cycle!

Ideas for programs at our monthly meeting are always welcomed. If you have an idea for a meeting topic, or if you know someone that could make a presentation, please contact [Secretary Joe Sybille](#).

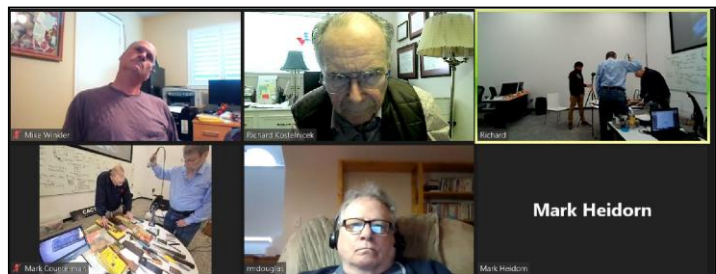
Members are requested to submit to the club secretary the name, address, telephone number, and website address, if any, of any metal or other material stock supplier with whom the member has had any favorable dealings. A listing of the suppliers will appear on the homepage of the club website. Suppliers will be added from time to time as appropriate.

The club is looking for a member to serve as webmaster. After over ten years of service, our current webmaster would like to pass the webmaster torch to a successor. Also, the club is looking for a volunteer to serve as president.

Recap of the 09 March 2024 General Meeting

By *Dick Kostelnicek*

It took an hour to make the new video and audio equipment operational at the TxRxLab facility. During that time Mark Counterman employed his mobile phone camera to take Zoom viewers on a silent walking tour of the TxRx shop facilities. The meeting then proceeded normally.



Presentation

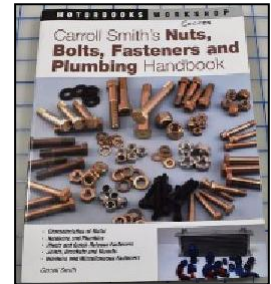
Rich Pichler (right photo) gave a talk with examples of the edge geometry of cutting tools. The main takeaway was that most cutting edges are not smooth but microscopically serrated. Hence there is a sawing action as well as a wedging action as tool cuts metal.



Cutting fluids reduce sliding friction, serve as a coolant, and carry away swarf or debris. Hollow ground or concaved curved blades. such as those found on pocket knives, allow time saving by removing only the metal near the edge. Rich employed a electronic microscope to illustrate in detail the edges on many machine cutting tools.

Show and Tell

John Cooper showed some of the stuff he bought at an auction. He also talked about rolled vs. cut bolt threads and how the shank on a rolled thread bolt often has a reduced shank diameter between the head and the threaded portion of the bolt (right photo).



Gary Toll described a leaf vacuum-mulcher he is building. It uses a large barrel to contain the picked-up debris.

Mark Counterman has placed our videos on a [YouTube channel](#). *Dick Kostelnicek* has also been able to make them [viewable directly on our website](#). Now there are two places to view them.

Article

Tailstock Die Holder

by Martin Kennedy

I made a die holder that I use frequently. It holds a die at the end of a shaft that is mounted in a lathe tailstock. In use, hold the handle on the die holder to prevent it from rotating. Unfortunately, as the dies get larger, it's harder to keep it from rotating.

Recently, I saw a video on YouTube about a tailstock die holder called "Is this the best [Tailstock Die Holder](#) for the home shop machinist?" by Jonesey Makes. This video shows details of the construction, operation, and theory behind this device. I was intrigued by this holder, originally designed by J. C. Payne. It was even better than the holder that I had. In use, the die initially rotates with the rod being threaded. The tool incorporates a double cone clutch with a handle. Moving the handle left or right engages the clutch, causing the holder to



stop rotating and the die to start cutting. The tool stops cutting when either the handle is released or the die runs into a shoulder and causes the tool to overcome the friction in the clutch.

It was a fun build. I used CNC for the taper cuts, but I could have made it conventionally. There's a kit with plans and pre-cut steel stock available from Hemmingway Kits in the UK for about \$50 plus shipping. It didn't look that complicated so I didn't order the kit. I made my own plans from information I obtained from the YouTube video.

I have mostly hex dies, so I made one end to hold them, and the other end to hold round dies.

