June 2017
Newsletter

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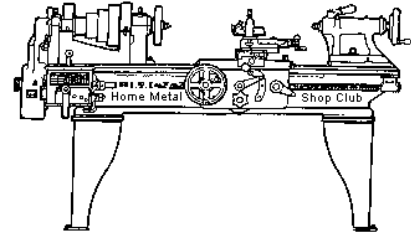
The Home Metal Shop Club has brought together metal workers from all over the Southeast Texas area since its founding by John Korman in 1996.

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	Vice President	Secretary	Treasurer	Librarian
Brian Alley	*Ray Thompson*	*Joe Sybille*	*Emmett Carstens*	*Ray Thompson*
Webmaster/Editor	Photographer	CNC SIG	Casting SIG	Novice SIG
Dick Kostelnicek	*Jan Rowland*	*Martin Kennedy*	*Tom Moore*	*John Cooper*

This newsletter is available as an electronic subscription from the front page of our website. We currently have over 1027 subscribers located all over the world.

About the Upcoming 08 July 2017 Meeting

The next general meeting will be held on 08 July at 12:00 P.M.(noon) at THE MAKERBARN located at 9522 Carraway Lane, Magnolia, Texas 77354.

Visit our website for up-to-the-minute details, date, location maps, and presentation topic for the next meeting

General Announcements

Videos of recent meetings can be viewed on the HMSC website.

There is a field trip scheduled for Wednesday, 21 June 2017, at 7:30 P.M. at the Fort Bend campus of Texas State Technical College, 26706 Southwest Freeway, Rosenberg, TX 77471 to see the precision machinery laboratory

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 Vice-President Ray Thompson.

Recap of the 10 June 2017 General Meeting
By *Joe Sybille*, with photos by *Jan Rowland*

Twelve (13) members, including one new member, Russ Green, attended the 12:00 P.M. (Noon) meeting at Barbara Bush Harris County Library, 6817 Cypresswood Drive, Spring, Texas 77379. Welcome to the club, Russ. There are thirty-four (35) members in good standing with the club.

President Brian Alley led the meeting (right photo).

The annual election of officers was held. Current office holders agreed to serve another term.

Presentation

There was no formal presentation today. Instead, club member Norm Berls (left photo) gave an impromptu talk on his efforts to 'bankrupt' himself through the purchase of machinery tools, accessories and materials to make an assortment of 'useful' projects. Cub member Jan Rowland (photo below) followed Norm with a short video depicting the making of an organ pull stop on a CNC (Computer Numerically Controlled) lathe that he designed and built. Additionally, Jan displayed a slide show of pictures depicting how he made the CNC lathe.

Norm began by sharing with those present some of the YouTube videos of which he is a regular subscriber. Among those shown were Abom 79, Clickspring, Kosmos Horology, and Torbjorn Ahman. He then discussed his unsuccessful efforts to upgrade his SketchUp 2016 software to SketchUp 2017. It seems the video card in his two year old laptop cannot handle the graphics requirements of SketchUp 2017 without an expensive uncertain-to-work modification to the laptop's on-board video card.

Norm then discussed his new initiative to learn Fusion 360. He was pleased to discover that this software will import SketchUp files. Then he displayed 3D pictures of a thread gage and his latest project to design a pantograph to engrave lettering on his projects.

The five minute video depicting the making of an organ pull stop displayed the genius of Jan's creativity. Jan wrote the software, using GW BASIC, to control the travel of the various lathe functions. Afterwards, a slide show depicted the development of the CNC controlled lathe.

Safety Moment

President Brian Alley showed a safety video on workplace accidents. Most of them could have been avoided if the workers had taken a few moments to think about what they were about to do. Even in the home workshop one must take a few moments to think about the consequences of one's actions.
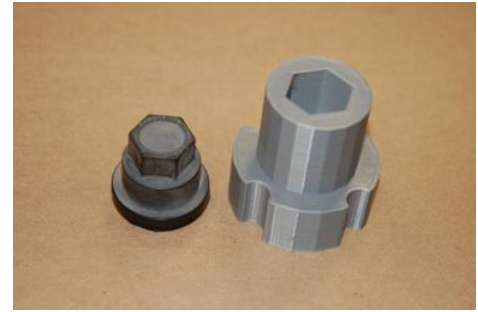
Show and Tell

John Cooper described how he used an engine hoist and come-a-long to remove and replace the knee of his mill. John is reconditioning a mill acquired recently.

Gary Toll discussed how he used PVC pipe and PVC solvent to repair a broken vacuum cleaner.

Brian Alley displayed a 'Fidget' toy spinner, with built-in bearing, that he made on a 3D printer (left photo). Also, Brian showed a wheel cover lug nut removal tool he made on a 3D printer. According to Brian, his tool works better than the one provided by the car manufacturer (right photo).

Norm Berls showed a steel rod and bearing that he is contemplating using in a pantograph under development (right photo).
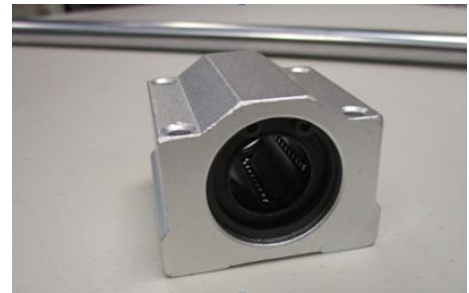
Problems and Solutions

A member asked for suggestions on the best way to remove mold on the plastic handles of screw drivers. Several suggestions were offered.

Another member cautioned those present to note the rotation of the headstock when making a left hand thread with the tap in the tailstock.

Another member requested suggestions on resolving a problem with an encoder on a mill he converted to CNC operation. It appears there is a hesitation with the X-axis controller motor. Several suggestions were offered.

## Articles

Magnets Everwhere
By *Dick Kostelnicek*

For decades I resisted using magnets to help keep tools in an organized way. I assumed that airborne metallic swarf would collect on inadvertently magnetized steel tools, or that I would have to be constantly demagnetizing screwdrivers and such that became themselves magnets.

Until recently, magnets used to secure tools were relatively weak, while the strong ones were bulky and expensive. That all changed with the availability of super strong Neodymium Rare-Earth Magnets (left photo) and sintered ceramic or ferrite magnets (right photo).

Now, after several years of employing copious magnets to secure and display many hand and machine tools, I can report that swarf accumulation is only a minor nuisance and that inadvertent magnetizing of tools is virtually nonexistent. The main advantage of magnetic security is than most of my often used tools are suspended in plain sight and kept from cluttering my work surfaces. The following photos tell a story of how magnets have made the organization of my shop somewhat easier.
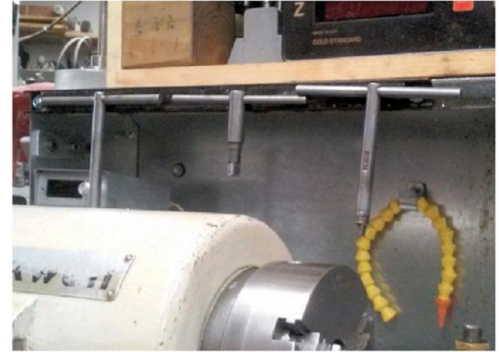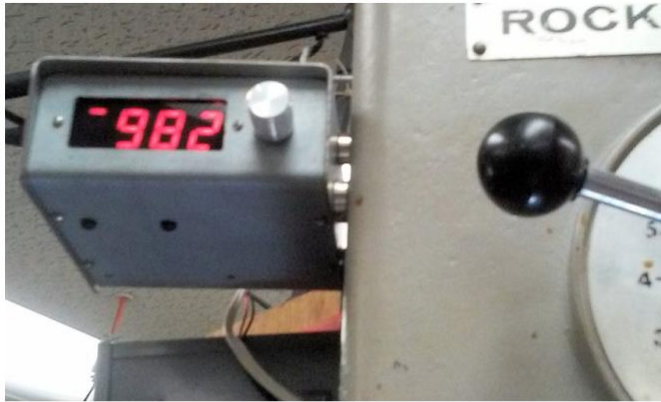

Ferrite strip magnets

Neodymium Rare-Earth Magnets

Disk magnet holds tachometer to drill press

Securing shim behind part in chuck