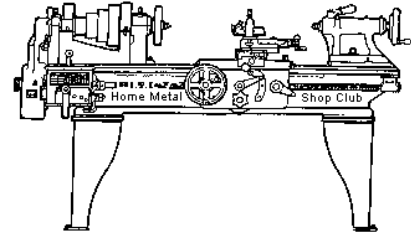




September 2021

Newsletter

Volume 26 - Number 09



<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.

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Vance Burns

Vice President
Ray Thompson

Secretary
Joe Sybille

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Gary Toll

Librarian
Ray Thompson

Webmaster/Editor
Dick Kostelnicek

Photographer
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CNC SIG
Martin Kennedy

Casting SIG

Novice SIG
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 09 October 2021 Meeting

The next general meeting will be held on 09 October 2021 at 1:00 P. M. on-line at Zoom.us and in person at TxRxLabs, 6501 Navigation Street, Houston, Texas 77011. A week before the meeting invitees will receive from the webmaster the meeting ID and passcode to join the on-line meeting.

General Announcements

[Videos of recent meetings](#) can be viewed on the HMSC website.

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](#).

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.

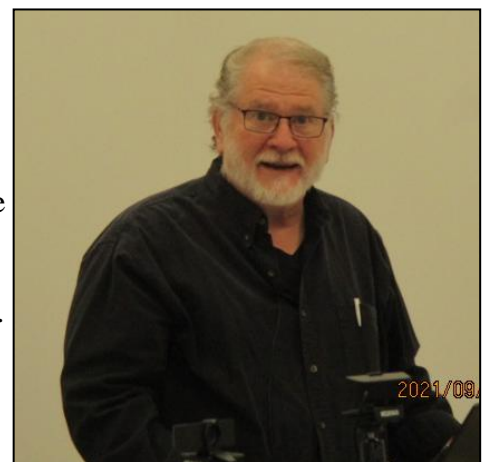
It is with deep regret the club announces the passing of long time member *Thomas Moore*. Tom, as he was known in the club, served as president for several years and was the current Casting SIG leader. Our condolences are extended to his family.

Recap of the 11 September 2021 General Meeting

By Joe Sybille



Six participants attended the in-person meeting at TxRxLabs. They live streamed the meeting to six participants attending virtually via Zoom. There were two visitors, Russel Scobie and Gene Smith. President Vance burns led the meeting (right photo).



Presentation



Club member Rich Pichler gave a presentation on the club lathe, a six by eighteen inch Atlas. He began by showing a group picture of the accessories and describing them. Among the accessories shown were several change gears, boring bar, knurling tool, centers, and lathe dog. Also shown were a milling attachment, face plate, three jaw chuck, and tooling to make adjustments to the lathe. The lathe is mounted to a forty inch long by twenty inch wide by one inch thick flat board to facilitate moving it. On the underside of one end of the board are two non-swivel wheels. Once on location, the other end is leveled by a two by four cut to match the width of the flat board. Powered by a 1/3 HP single phase 115 volt motor and with a lantern type tool post, the lathe can easily turn and cut brass and plastic stock. When it comes to cutting mild steel, the lathe is underpowered and produces less than desirable results.

Pichler then spoke about moving the lathe. At about one hundred fifty pounds, the lathe is easier to move from the workbench to the vehicle transporting it if one has a hydraulic lift table. He purchased from Harbor Freight a lift table to help with moving the lathe. After the purchase, he discovered the lift table top did not raise the lathe high enough to clear his vehicle lift gate. He solved the problem by building a box to provide the required height and in so doing created a storage bin for miscellaneous items – a win-win.

Among items the lathe could use are a steady rest and a follower rest. Even though built more than fifty years ago, the lathe is serviceable and serves as an excellent learning tool. It is used mainly to demonstrate general lathe principles to newcomers to machinery. Below are several pictures depicting the lathe and its accessories and lift table.



Safety Moment

Several safety videos were shown today. One emphasized the importance of fixing a workpiece when drilling holes in the workpiece. The workpiece, held by hand, spun uncontrollably by the drill bit making a hole, struck and injured the drill press operator.

The next video stressed the importance of proper planning when moving heavy equipment. Injuries or worse can occur when control of heavy equipment is lost due to sudden unbalanced movements.

The next video showed a worker being scooped up inadvertently in a tractor bucket and immediately covered with several cubic yards of soil. A blind spot obscuring the view of the tractor operator caused this unsafe and life threatening scenario. Fortunately, the worker managed to wave a hand while in the bucket thereby catching the attention of the tractor operator.

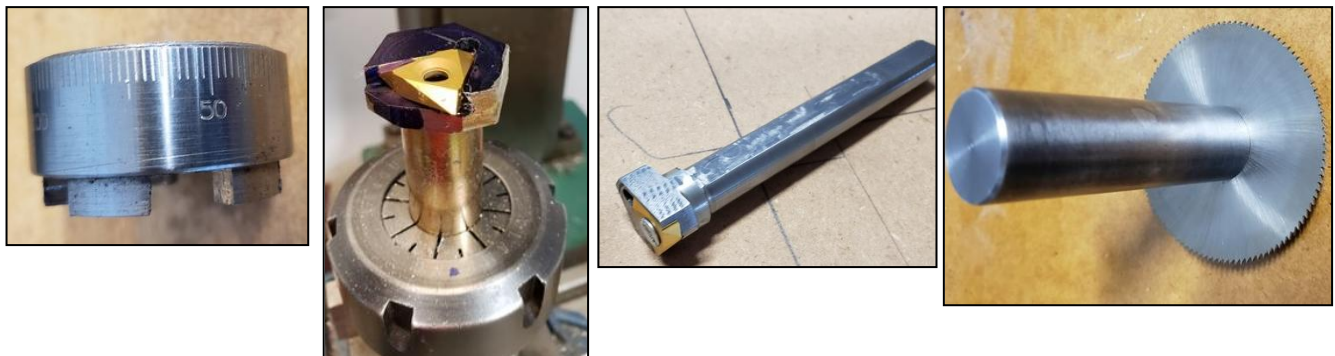
Finally, the last video showed what happens when a railroad crossing arm does not lower when a train is approaching a railroad crossing. Even though crossing lights were flashing and the crossing arm remained in the up position, the driver took a chance and proceeded to cross the railroad tracks. A vehicle colliding with a moving train did not end well for the motorist.

Show and Tell

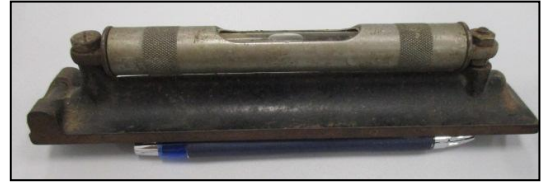
John Cooper showed several machinery items acquired recently at an auction. See photos below.



Richard Douglas exhibited a dog for his shaper, an internal boring bar he made, and two slitting saw arbors he made. See photos below.

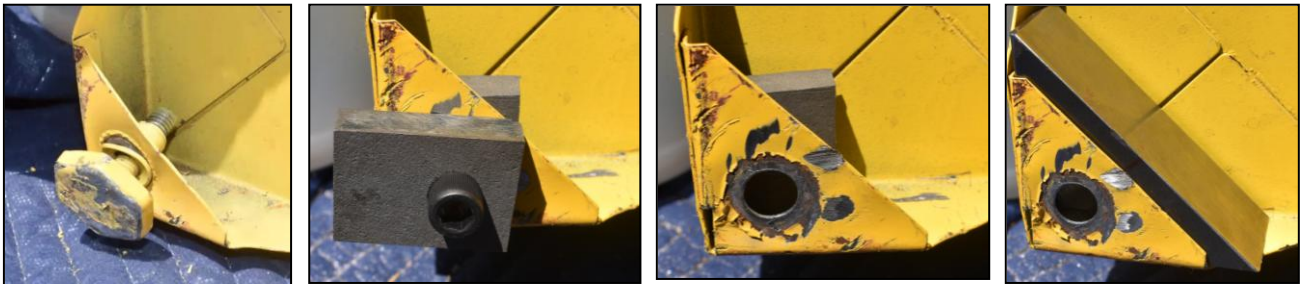


Richard Pichler displayed a machinist level sourced at a garage sale. See right photo.



Problems and Solutions

A participant described how he repaired the bottom corner of a cabinet bought at auction. The bent corner prevented the cabinet from sitting level. See photos below.



Another participant described how he restored a vintage lathe made in the late 1890's. He added a new motor and framework to support the motor. See right photo.



Articles

Emergency AC Power

By Dick Kostelnicek



A consequence of living on the gulf coast of Texas, USA is loss of AC electrical grid power for significant periods every couple of years. Such outages result from hurricanes, floods, and as has happened this year, 2021, prolonged sub-freezing weather. Otherwise, the climate here is fine, hot and humid. I have a 10K-watt portable alternator (sometimes misnamed as a generator). In emergencies it operates electrical devices such as lights, stove, HVAC, phone charger, and communication

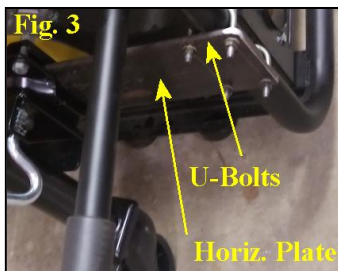


equipment such as TV, computer, router and WIFI. You can't run all of them at once with 10K of AC. So, I cycle through them as necessary.

Of course you must operate a gasoline powered alternator outdoors because of carbon monoxide, heat, and noise. The sloped cement ramp (Fig 1) leading to the back door of my shop, is the ideal location to place the alternator when running. It is elevated from flooding and close to an entrance hole (Fig. 1) in the house wall. This hole facilitates an electrical connection between the inside main breaker box and the outside alternator while keeping the shop door closed.

The alternator is leveled when positioned on the inclined cement ramp by an elevating wheeled jack (Fig. 2). This commercially available jack was designed to attach to the tongue of a utility trailer. It is bolted onto a horizontal steel plate, 4 inches wide and 3/8 inch thick (Fig. 3). The plate is bolted to the round tubular alternator cradle by four U-bolts fashioned from 1/4 inch threaded rod. Hence, the jack may be easily removed as there is no welding.

The alternator is prevented from rolling down the cement ramp by two bent sheet metal chocks (Figs. 2 and 4). The 90 deg. bend on the chock's end fits into the vertical expansion gap between the house cement foundation and the rear of the inclined cement ramp.



The swivel wheeled jack allows ease of pushing around the 225 pound 2-wheeled alternator. This is done without lifting and pulling on the tow bar (Fig. 2), which is quite strenuous for me.



The alternator and its gas tank are easily tilted by the jack's elevating crank. Thus, by running the engine to starvation all the fuel in the tank and engine's float bowl can be spent prior to storage.