



SCHSM

Southern California Home Shop Machinists

May 2, 2020

OFFICERS

President	Doug Walker
Vice President	John Miller
Secretary	Ron Gerlach
Treasurer	Jim Endsley

COMING EVENTS

June Virtual Meeting
Sat, 6 June 2020, 2:00p.m.
via Zoom

Club Picnic (Maybe)
Sat, 20 June 2020
Alondra Park

PREFACE -

The new and unprecedented virtual May meeting of the Southern California Home Shop Machinists was called to order a little past 2:00 p.m. on Saturday, May 2, 2020. We met in the cloud from our individual homes via Zoom. There were 27 members in attendance.

CLUB BUSINESS –

Doug called the meeting to order.

Ed shared the latest information about the school's pandemic related plans for reopening. The official position now is a mid-October resumption of any on-site class activities. This could obviously change at any time. He then went on to say that he plans to bring a cake to commemorate the 20yr anniversary of the founding of the club. Happy Anniversary SCHSM!!

The June 20th picnic date was discussed. Whether or not it is held at Alondra park is totally up to the city/county officials. If the Parks and Recreation folks cancel the event, then the club has a chance of getting a refund of the deposit. If the club cancels, then the deposit is forfeited. The current plan is for members to email or otherwise contact Jim Endsley and commit to attendance so a count for food and beverages can be made. This remote commitment will also constitute a commitment to pay the agreed upon fee for each committed person. A vote was taken by Doug and the easy majority agreed on a fee of \$10 per person. The discussion then turned to the choice of food and the idea of a Taco truck quickly surfaced to the top of the heap. Michael mentioned that it was important to find out the entire costs from the Taco vendor since some quote a low per-person cost but then bump up the final bill with many additional costs. Frank offered up the name of his Taco vendor and stated that they quote on a simple per-person cost with no added expenses. Doug asked Frank to pursue this vendor for a picnic quote.

Mike Lucek reported that he has not made much progress with the SCHSM web site conversion but assured everyone that the domain names were safe and that he was trying to allocate some time to make progress.

Don Huseman asked about a crane attachment for his KDK tool holder that could be used to lift and move his 50lb lathe chuck. He had seen a video of a crane, perhaps from Sky Hook Mfg, that mounted in the lathe tool post and could be maneuvered around to lift and aid in the R&R of a heavy chuck of a heavy work piece. This sounds like a nice

concept and we may get an update on a later date.

Norm Wells talked about his optical center punch which he made some years ago but admittedly has not used much. He made it from scrap materials on hand. The viewing/centering piece was made from Lucite and had no magnification.



The Lucite rod is placed in a hole and is used to visually locate the center of the hole over the target layout lines. Once located the Lucite rod is removed and replaced with a center punch and a punch mark is made. The accuracy of the device depends on the accurate location of cross-hairs on the Lucite rod as well as an accurate location of the center punching point.

There was a discussion about the possibility of expanding the Zoom meeting format to open the meetings to members well beyond the local area such as US wide or world wide. I believe the consensus was that this was not a practical or time worthy ambition.

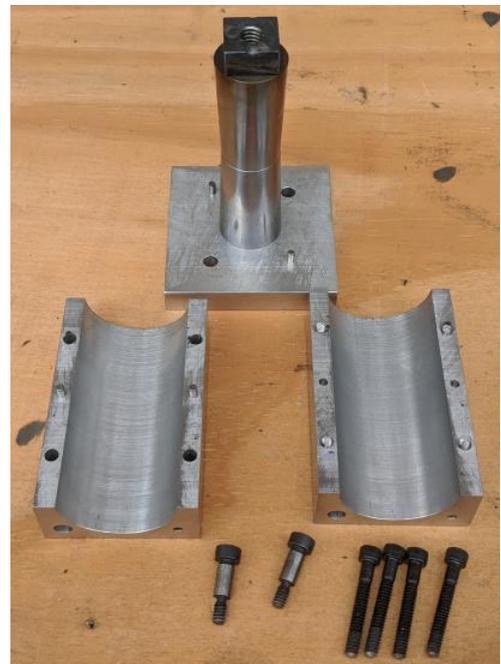
The ability for members to invite guests to the Zoom meetings was discussed and voted on by all the members present. This passed with a majority. Thus, current members can forward email invites to potential guests which would allow them to log into the Zoom meetings. These invitations are on a month by month basis and would limit the possibility of abuse by ill-intended individuals.

SHOW and TELL

Ron Gerlach presented the pieces of a Babbitt shell mold he was making to pour crankshaft bearings for the Fuller and Johnson Farm Pump Engine.

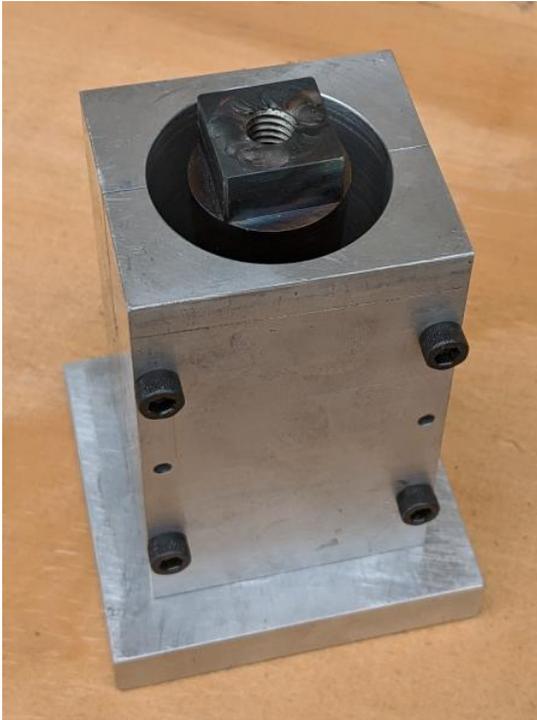


The required shapes are one-piece tubular bearings that press into place. They could not be poured in the conventional manner using two separable halves. His technique was to pour tubular blanks with a small amount of excess material on the internal and external surfaces. They will then be turned to the exact size. The ID portion of the mold needed to separate at the middle so the two halves could be drawn out from both ends. This required a slight taper to ease the extraction process. One of the tapered halves is shown above along with a threaded insert that was welded into place after the part was turned

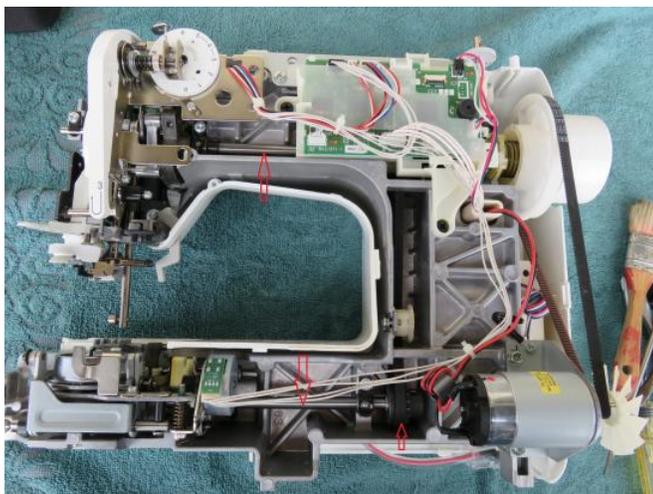


on a mandrel between centers. The image above shows all the parts ready for assembly. The image

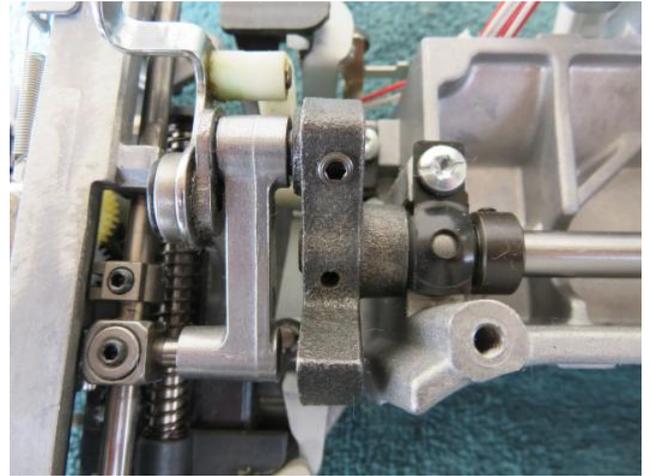
below shows the assembled mold.



Dan Snyder presented a challenge that he recently was up against in his shop. He had a serious honey-do that he was presented with and showed how it was resolved. His wife's sewing machine had developed a serious mechanical problem and had become non-functional. Upon opening up the cabinet and exposing the complex array of levers, gears, belts, cams and drive shafts he quickly surmised that one particular part had seized up and was keeping everything else stuck. The image below shows the



internal guts of the machine. Note the red arrows that point out the two main shafts. By moving the shafts and noting where the motion appeared to stop, he was able to narrow it down to a cast alloy link that was seized onto a steel crank pin. Some intricate disassembly led to the removal of the zinc



alloy part that was starved of lubrication and had galled itself onto the steel pin. The hardened steel pin was still in good shape so he cleaned up the ID of the die cast alloy part,



added plenty of lubrication and restored free movement of the part. He then reassembled the mechanism, made a few key adjustments and had a good working machine again.

Butch Sherrick showed the group an old 1902 (reprinted in 1977) publication titled Model Engineer and Amateur Electrician. It was full of interesting articles about models and various fabrication projects. This appears to have been a regular periodical back at the turn of the century.

Matt Rulla provided a slide show presentation of his new shop up in Olympia Washington. Apparently, he searched a while in the area to find a property with spacious provisions for a shop. This is reminiscent of another member, John Miller, whose shop was given a video tour during one of last month's practice meetings. Matt's new shop was indeed spacious. He is not finished setting everything up yet but he had

placed all of his large machines and cabinets in the space. First up was the area with his two lathes, one mounted on original style cast iron legs and the other one mounted on a wood and metal



table.

Next up was the section behind the lathes with his mills, a full size Bridgeport and a small horizontal mill. Note the nice array of storage cabinets



between the machines.

Moving on, he next showed the area where his Pantograph and shaper are located. Note the custom wood pallets they are mounted on which

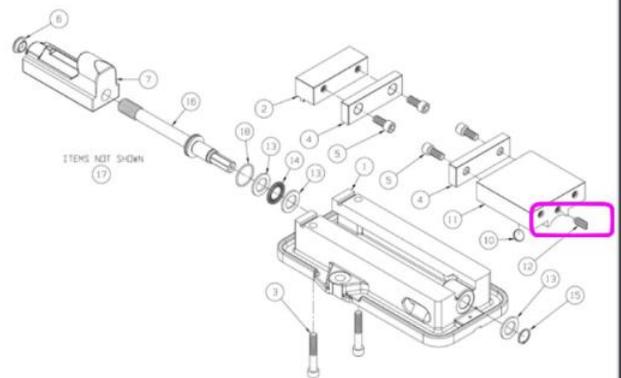


allows for easy repositioning as needed. The last image shows his CNC Sherline machines. The red enclosure houses a 4-axis CNC mill that he acquired at a great price and refurbished all the



out-of-date motors and electronics. The one setting on the table in the foreground is a CNC cam grinder with a diamond wheel he uses for grinding carbide tooling. It was quite impressive, and I am sure there were more than a few envious viewers during the tour.

Paul Chretien talked about old Kurt mill vises. Apparently, the patent has long since run out on



their very successful and useful design. This has allowed an array of competition, mostly from off-shore sources. The net result of this and the general decline of manufacturing in this country is a plentiful supply of used (and sometimes abused) but still serviceable vises. Since they were made so well and replacement parts are still available, it is very practical to rebuild and restore these vises providing many more years of service. This is great for the amateur home machinist since these revitalized tools can provide strong and precise work holding at a very affordable price. Severally abused vises can even have their working surfaces restored with Bondo, braze or weld material as

appropriate. Paul had two of these old vises that he picked up for a bargain. He was able to repair a variety of dings and holes and to buy new jaws from Kurt. The replacement of the jaws completed the process of bringing these two old gems back to their original precise work holding condition. Here are the two refurbished vises



with the new jaws in place. Paul also provided an up-close shot of the unique nut that was key to the success of the



Kurt vises. This is shown as item 7 in the exploded diagram displayed earlier.

Pat Dobbins talked about a big sale at a local hardware store that had been in business for over 30 years. It was something she had wanted to attend but was unable for some reason. Another one that got away.

SCHSM welcomes presentations by members or guest speakers on any subject related to metal working activities. If you have some knowledge or experience you feel may be of interest to our members, or if you know someone that may have something interesting to relate, please consider making a presentation at a meeting. Presentations may be a little longer and more detailed than a show and tell, and may be accompanied by slides, video, or physical displays. Probably every member has some experience they can share, and this is the purpose of SCHSM. Please contact President Doug Walker to make arrangements to give a presentation.

SCHSM met in Classroom AJ115 on the first floor of the Industry and Technology building of El Camino College, 16007 Crenshaw Blvd. Torrance, California, at 2:00 p.m. on the first Saturday of every month until March of this year. Meetings are now held via Zoom. This will continue until at least October of this year.

If you would like to contribute an article to this newsletter, or make a comment, contact the editor, Ron Gerlach. He can be reached via the SCHSM Groups.io Group, or at r7734g@hotmail.com.

Find us on the web at www.schsm.org.

