



SCHSM

Southern California Home Shop Machinists

October 7, 2017

OFFICERS

President	Charlie Angelis
Vice President	Michael Vulpillat
Secretary	Fred Bertsche
Treasurer	Jim Endsley

COMING EVENTS

Little Machine Shop
Open House
Pasadena, CA
Sat, October 28, 2017, 10:30 a.m.

November Meeting
Sat, November 4, 2017, 2:00 p.m.
El Camino College

December Meeting
Sat, December 2, 2017, 2:00 p.m.
El Camino College

Preface

The October meeting of the Southern California Home Shop Machinists was convened at 2:00 p.m. on Saturday, October 7, 2017. Vice President Vulpillat chaired the meeting in President Angelis's absence. We met in classroom AJ115 on the first floor of the Industry and Technology Building at El Camino College in Torrance, California. There were approximately 22 members in attendance, and no visitors.

Club Business

Willie Jordan gave a briefing on the upcoming Little Machine Shop (LMS) Open House, which is to be held on Saturday, October 28, 2017 from noon – 4:00 p.m. SCHSM has been invited to attend and exhibit their latest projects. Tables and chairs will be provided, as well as a large awning. LMS will also provide food, snacks, and refreshments. Willie said that set-up time will be from 10:30 a.m. until noon. During that time, members will be able to drive their vehicles up to the exhibit area for loading and unloading of their projects and equipment. Lewis Sullivan will bring a large, quiet(er) air compressor for those wanting to run their steam engines.

Don Huseman said he is still attempting to arrange a tour of Jay Leno's Garage. He'll keep the membership posted as things develop.

Plans remain in the works for a tour of the Edelbrock Foundry in San Jacinto, CA. It will likely take place in early November. Members are asked to carpool to the site as parking is limited. A release of liability waiver will be required of every member wishing to attend, and everyone will be required to wear safety glasses during the tour. Further information will be provided during November's club meeting.

Michael Vulpillat asked members to consider the possibility of forming a group travel tour to a site or event that would be of



Norm Wells giving a presentation on knurling.

interest to the membership. The Knight Foundry in Northern CA; Cabin Fever Expo & Auctions in Lebanon, PA; North American Model Engineering Society in Wyandotte, MI; and the Henry Ford Museum in Dearborn, MI are some examples of possible destinations. Members interested in participating in such a tour are asked to contact Michael.

Presentations

Knurling

Norm Wells gave a very interesting presentation on knurling. He displayed examples of various knurling tools he uses in his home shop, including a nice self-centering scissor type knurling tool that mounts in a tool holder and applies even pressure to both sides of the workpiece. The scissor type tool places little if any pressure on the lathe itself, and is not likely to dislodge the workpiece from the chuck or collet due to side loads. Norm also showed some examples of projects he's made that required knurling.

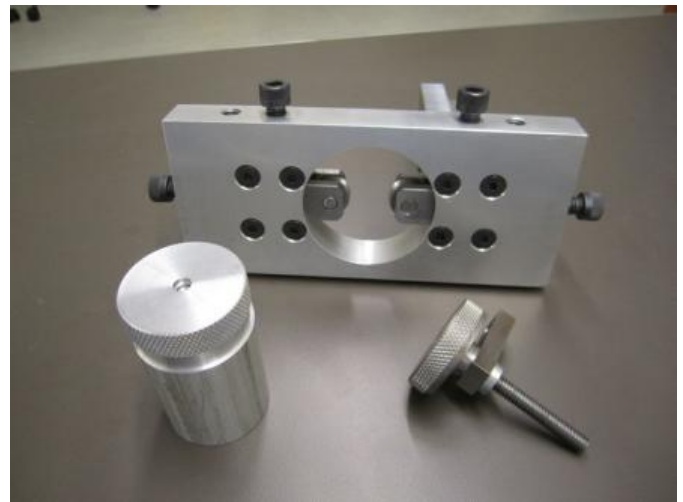


Norm Wells' assortment of knurling tools. Upper Left: scissor type Upper Right: "Bump Type" fits directly on Aloris style tool post. Lower Left: "Bump Type" fits in lantern style tool holder or quick change tool holders. Lower Right: Assorted knurl wheels.



Norm Wells' knurling projects. Upper Left: sample knurls. Upper Right: knurled disk. Lower Left: replacement lock collar for USB camera. Lower Right: dial with knurl on beveled face.

Dan Snyder displayed a knurling tool he made in his home shop. It is based on a design he saw on Tom's Techniques YouTube Channel. Dan's design also mounts in the tool post, and while it is not self-centering, each knurling wheel can be adjusted independently for precise metal displacement.



Dan Snyder's shop-made knurling tool and sample knurling projects.

Steel / Heat Treatment

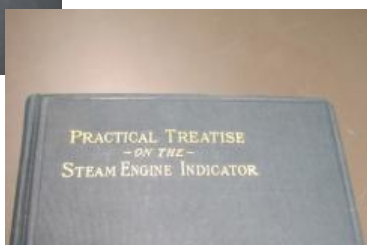
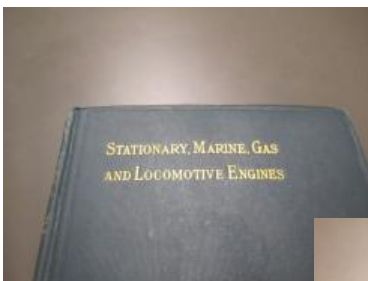
Michael Vulpillat gave a talk on the physical transformations that steel undergoes as it transitions through the various phases of heat treating. He explained how these changes are contingent upon the type of alloy, the carbon content, the temperature of the material, and the rate of cooling. He also described the difference between normalizing and annealing.



Michael Vulpillat speaking on the behavior of steel during the heat treating process.

Show and Tell

Matt Rulla showed a couple of vintage books he recently acquired. The first title is Hawkins' Indicator Catechism: Practical Treatise On The Steam Engine Indicator by N. Hawkins M.E. This book chronicles some of the primitive, but ingenious mechanisms that were used to graph, on paper, fluctuations in steam pressure during the operation of early steam engines. The second title is New Catechism Of The Steam Engine: Stationary, Marine, Gas, And Locomotive Engines, also by N. Hawkins M.E. It summarizes the origin of the steam engine, its evolution, design features, and applications.



Jim Endsley showed an assortment of "give-aways" he got from various vendors at WESTEC 2017.



Jim Endsley speaking about his visit to WESTEC 2017.

Don Huseman shared a technique he uses to sharpen very large HSS cutting tools for the lathe. Rather than spend a month of Sundays trying to grind a very large cutting tool on a small bench grinder, Don holds the cutting tool in a bench vise and rough grinds it to shape with a large angle grinder.

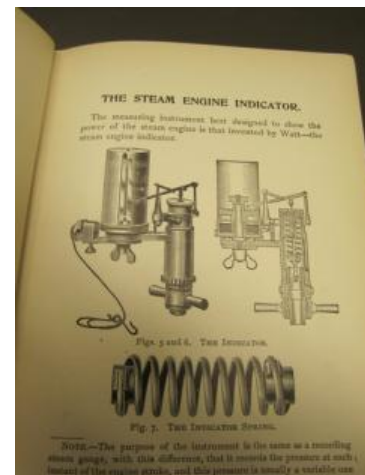


Illustration from Matt Rulla's steam indicator book.

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 Charlie Angelis to make arrangements to give a presentation.

SCHSM meets 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. The building is near Parking Lot B. Enter the campus from Manhattan Beach Blvd.

If you would like to contribute an article to this newsletter, or make a comment, contact the editor, Fred Bertsche. He can be reached via the SCHSM Yahoo Group, or at fbschsm@yahoo.com.

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