



SCHSM

Southern California Home Shop Machinists

April 3, 2015

OFFICERS

President Michael Vulpillat
Vice President Paul Chretien
Secretary Ken Rector
Treasurer Jim Endsley

COMING EVENTS

May Meeting
May 2, 2015
2:00 P.M.
El Camino College

June Meeting
June 6, 2015
Picnic
June 13
Alondra Park

Antique Gas and Steam
Engine Museum Expo
June (TBD), 2015
Vista

July Meeting
July 11, 2015 <----
2:00 P.M.
El Camino College

The April monthly meeting of the Southern California Home Shop Machinists convened at 2:00 P.M. on April 4th, 2015 in basement classroom 18 of the Industry and Technology Building at El Camino College in Torrance California. There were 37 people attending including a first time visitor, Daniel Schettini, son of member Frank Schettini.

Members agreed to a change of the date for the July meeting from July 4th to July 11th, because of the 4th of July Holiday.

Our Faculty Sponsor, Mr. Ed Hoffman announced that there will likely be a change in our meeting room beginning next month. The new meeting room will be either Room 33, across the hall from the current room, or Room 115 on the first floor. Ed will announce the change through the SCHSM Yahoo Group and notice will be posted at the campus on the day of the meeting.

President Michael Vulpillat spoke about the meeting format. There will be a published agenda for the meeting with important business items listed for discussion. Less important items not listed will be discussed at the end of the meeting as time permits.

Plans for the club picnic in June were announced. The cost will be \$12.00 per person for a catered picnic lunch. The menu will include sandwiches, chips, cookies, ice tea or lemonade and water. Members may bring their own soda if they like. An engine performance test similar to last year will be held. Members are encouraged to build an air powered engine for the test.

Jim Endsley told about our plan to have a booth at the Antique Gas and Steam Engine Museum Exhibition in Vista in June. He also spoke about the interesting exhibits and

activities at the museum. The museum occupies 55 acres with over 20000 items, in Vista California, in north San Diego County. Their collections focus on exhibits that actively demonstrate farm life, equipment and tools from 1849 through 1960's. Exhibits include operating stationary gas and steam engines of all sizes, a blacksmith shop, a machine shop with some vintage machinery and an n scale model railroad. Members attending our booth will receive free parking and admission to all the exhibition displays and activities. We will have several display tables in one of the

buildings with access to electricity to power our compressor. Jim will initiate a poll on the Yahoo Group to decide which of the two Saturdays in June we will attend.

The feature presentation of the afternoon was a presentation by Miller Farewell about his experience installing Solar Power at his home. The presentation included slides with images of his home and shop, graphs and technical details concerning financial and power data for Solar Power, including estimates of future power costs. Millar took advantage of a sizable federal tax incentive to reduce the costs. There was considerable discussion following about costs and returns and usage experiences for the investment.

The Show and Tell portion of the meeting began after the break with a slide show by Jim Endsley showing how he replaced a lost connector pin on his wife's Dooney & Bourke purse. Jim replaced the missing pin with a metric machine screw.

Norm Wells was inspired by Frank Marlow's talk last month to show scribe points made from tungsten carbide rod. Norm generously passed out the points to the members present.

Norm also showed a strap clamp made by Marman Products Company here in Inglewood. The clamp was invented by Herbert 'Zeppo' Marx who was an engineer and founder of Marmon Products following his career as an actor during the 20's and 30's. Marmon Clamps are widely used in many applications. They can be found in space vehicles such as the the Friendship 7 and the Cassini Orbiter built by JPL, in race car applications and nearly any application to join tubing, piping and other enclosures. The image shows a v-band clamp similar to the one Norm brought in. This type of clamp requires a bead on the tubing being clamped. Notice how the clamping strap encircles the pins through which the clamping bolt passes. A similar clamp might be fabricated in the home shop for use on small engines.



Larry McDavid showed a Nikon Zoom Stereo microscope he is selling. He also had a couple .750" diameter rounds of Rulon plastic bearing material for sale.

Don Huseman asked for a method to reduce the diameter of a drill to use with a form or roll tap to repair lead keels. After discussions about the efficacy of modifying a drill in this way, Ed Hoffman discouraged Don from that approach. Ed gave a short talk about roll taps, their purpose, how they work and how to calculate the proper drill size for their use.

Roll Taps are suitable for blind hole tapping in producing internal threads with no chips. The tap is stronger than a cutting tap due to its design. The effect of the fluteless design gives a large cross-section area to the tap, which effectively eliminates the problem of chip jamming and makes the taps very strong. The material deformation process produces internal threads with good surface finish as well as precise pitch diameter. Although less important in a home shop, roll taps make high speed tapping possible and extends tool life when compared with cutting taps. Lubrication is important to roll tapping and the burr at the face of an internal thread may be larger than those produced by cutting taps and may require larger counter sink depth.

Ed encouraged Don to use a proper drill size instead of modifying a drill. He defined the formula for the drill size for use with a roll tap to be;

$$\text{Drill Size} = \text{MD} - .0068 * \% \text{engagement} / \text{tpi}$$

Dan Snyder showed a couple hone stone adaptors to fit a Superior Hone Corporation mandrill. He showed a short video to illustrate how the stones are used in the mandrill.

Ron Gerlach showed cylinder gaskets for a large hit and miss engine he is rebuilding. He had the gaskets made by an American Expat in Thailand. Ron also spoke about an RO Tool and Cutter Grinder he recently acquired. The tool is made by Royal Oak Grinders division of Seneca Falls Machine Co. Ron received a lot of tooling with the grinder, most notably a spiral grinding attachment used to grind spiral fluted tools. The attachment is adjustable to set the helical angle to match the tool so it rotates as it is fed into the cutting stone. The following picture shows the attachment after Ron cleaned it up. The grinder is still being made by Seneca Falls Machine Co. who also make a number of attachments for it including an optical comparator.



Pat Dobbins brought in another small Stuart steam engine she recently acquired.

Jim Kreter showed two fixtures he made for use with his 7x9 band saw. He showed a small 2 inch bench vise attached to a plate to be held in the saw vise to allow holding small pieces very close to the blade. He also showed an adjustable stop rod mounted on the movable jaw of the saw vise to keep the jaws parallel when calming short stock. Both of these attachments are very useful when using the saw to cut small and short stock.

The club 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 or video, or physical displays. Probably every member has some experience they can share and this is the purpose of the SCHSM. Please contact President Michael Vulpillat to make arrangements to give a presentation.

The SCHSM meets in the basement class room of the Industry and Technology building of El Camino College, 16007 Crenshaw Blvd. Torrance California, at 2:00P.M., on the first Saturday of every month. The building is near Parking Lot B. Enter the campus on Manhattan Beach Blvd.

If you would like to contribute an article, to this newsletter, please contact the editor, Ken Rector, via the SCHSM Yahoo Group, or at kdrhoo@yahoo.com.

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