



SCHSM

Southern California Home Shop Machinists

March 7, 2015

OFFICERS

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

COMING EVENTS

April Meeting
April 4, 2015
2:00 P.M.
El Camino College

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

Picnic
June 13
Alondra Park"

Antique Gas and Steam
Engine Museum Expo
June 20, 2015
Vista

The March monthly meeting of the Southern California Home Shop Machinists convened at 2:00 P.M. on March 7th, 2015 in the new basement classroom of the Industry and Technology building at El Camino College in Torrance California. There were 44 people attending, including 3 newcomers and a returning member who had not been with us for some time.

President Michael Vulpillat introduced himself and the other club officers. He spoke briefly about his philosophy for the club, the need for members to contribute as speakers and his desire to give members an active role in the club direction and activities. He would like to improve our communications paths through the web site, the roster of active members and the Yahoo Group. Michael outlined how he will conduct the monthly meetings and the importance of participating in external events.

Michael introduced Vice President Paul Chretien who spoke about the club history and events in which the club has participated. These have included Career Day at El Camino College, The Student Exhibit at Westec, the Long Beach Model T Club Swap Meet, and more recently, the Antique Gas and Steam Engine Museum Exhibition, the Western Engine Model Exhibit and the Little Machine Shop Open House. Paul stressed that our participation in these events provides a means to announce our presence to others interested in metal working in their home shops, and to motivate our own membership to expand their interests by doing and seeing more. He encouraged all members to participate by showing their projects at the events and stressed that these need not necessarily be engine projects.

Following the business portion of the meeting, President Vulpillat introduced the guest speaker, Frank Marlow. Mr. Marlow is a Registered Professional Engineer and holds BA, BSEE, MSEE and MBA degrees. He has worked for several large aerospace corporations but many years ago he struck out on his own to work with metal. He studied metal working and welding with the top men in the field. He has written several books on the subject of machining and welding.

Frank's subject for the meeting was, "Small Hand Tool Upgrades" which he illustrated with a dozen devices the machinist can make to enhance the utility of the hand tools he uses at his work bench

every day. These included a magnetic lamp clamp, a device to clamp an air hose to the mill, a center drill permanently installed in a Morse Taper tailstock fitting and my favorite, the scriber made from a piece of round stock and a tungsten welding electrode sharpened on a diamond wheel. Frank accompanied his talk with well produced slides and photos. This was a very entertaining and informative presentation.



Marv Frankel told about a recent project he did to restore the steering gear of a 41 foot sail boat built in Hong Kong in 1977. After 38 years the teeth on the steering gear quadrant had worn down to bare nubs in the central portion of the quadrant. Marve made careful measurements, calculated the tooth parameters and purchased a gear cutter of the appropriate DP and range. He had his local welder build up material in the proper place to serve as the basis for new teeth. He then machined the material with his new cutter to form the teeth, using a positioning pin to establish the position of the renewed teeth relative to the existing unworn teeth at the end of the quadrant. Marv illustrated his presentation with clear photos showing the mill setups and before and after views of the gear.

Several people brought things for Show and Tell. Jim Endsley attended the PlasTech Exposition in Anaheim and showed some hand outs he obtained there. He obtained two transport slides one might use for a light weight X-Y transport. Jim also showed a cut off .22 rifle barrel he finished on the end and he discussed the setup he used to align the front sight.

Larry Lee described how he adapted a winch to his 10 Ton Dake Press to use a belt for lifting the press table. Larry also replaced the factory pump to get more displacement per stroke. He illustrated his talk with a short video.

John Miller showed his 4 foot shop made adjustable Crescent Style wrench after it was chrome plated.

Ron Gerlach is working to restore a 16 HP West Coast 7-1/2" x 16" engine. He showed the intake valve and cage he is rebuilding. Ron replaced the valve stem and is going to grind the valve and eat using his antique Souix valve grinding equipment.

Pat Dobbins showed plans for two different Stuart engine models she obtained from Cole's Power Models in Warren Texas.

Frank Schettini reported that Stuart Models is in business again in England with steam engine kits and parts. They have a 224 page catalog available through their web site at stuartmodels.com. Frank showed two Geometric Die Head tools he obtained at the Old Tool Swap Meet in Culver City. Geometric Die Head tools are more or less the standard of the industry since the 1890s and have always used the same chaser dies. Consequently you can still buy the dies for very old tool heads. The tool is used to automatically cut threads in the lathe and will cut to a certain length, release and back out automatically. It is a very interesting tool.

Pat Reilly told about his visit to the Starret Factory in Athol, Maine and the American Precision Museum in Vermont.

The meeting was adjourned at 5:00 P.M.

Sixteen members of the SCHSM recently visited the Zephyr Tool Group plant in Inglewood. The company makes industrial drivers and driver bits, Kwik-Lok fasteners and specialized aerospace tools. The group was hosted by Mr. Steve Brie, Plant Manager, and Mr. Neil Post, Sales Manager. These men took us through the shop facilities. They described what was going on and patiently answer our questions.

The Zephyr Tool Group has occupied the corner of Hindry and Florence Avenue since it's founding in 1939. Their lobby display includes a slide show and photos depicting the original buildings and the history of the site. The plant is composed of a number of shop areas including grinding, stamping, machining, heat treat and finishing. As you might expect, nearly all the operations are performed on automatic machines of one sort or another. In the grinding shop we saw them making specialized tooling for the machines and also centerless grinding of shafts for their product. The stamping shop stamps jaws for Kwik-Lok fasteners in a large wire fed press. They also have presses to stamp part numbers onto driver bits. In another shop we saw rows of small automatic lathes shaping driver bits with three operations using tools ground in the grinding shop. We visited the heat treating department and next to it was the finishing shop which included a black oxide bath which gave a beautiful finish to their product. We finished up in the engineering department where we spoke with their engineers and inspected parts produced on a 3D STL printer. After the tour everyone met for lunch at the local Mexican restaurant.



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.