



# SCHSM

Southern California Home Shop Machinists

April 2, 2016

## OFFICERS

President	Michael Vulpillat
Vice President	Frank Schettini
Secretary	Ken Rector
Treasurer	Jim Endsley

## COMING EVENTS

May Meeting  
 May 7, 2016  
 2:00 P.M.  
 El Camino College

June Meeting  
 June 4, 2016  
 2:00 P.M.  
 El Camino College

Picnic  
 June 11, 2016  
 Alondra Park

AGSEM Exhibition  
 June Date TBD  
 Vista CA

## Preface

The April monthly meeting of the Southern California Home Shop Machinists convened at 2:00 P.M. on Saturday, April 2, 2016 in classroom AJ115 on the first floor of the Industry and Technology Building at El Camino College in Torrance California. There were 36 people in attendance. There were no visitors

## Club Business

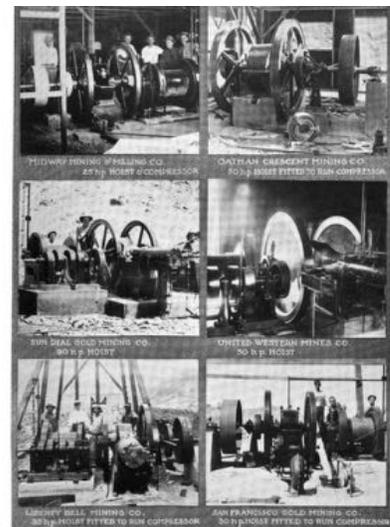
President Michael Vulpillat announced that the lunch for the picnic would be \$12.00. There will be no charge for kids. The menu will be as last year, pizza and sandwiches and soft drinks.

Graham Hollis told about our club's new web site implementation that he developed to replace the existing one. The site has some very appealing features beside it's modern look, including a forum feature where visitors can communicate and the ability for registered members to upload files into the project and article sections. The site is easy to use and presents a very nice image of our club to visitors. Graham has transferred selected content from the old site to this new one and will gladly move any other content upon request. He has made it easy for members to create their own project pages and encourages every one to do so. Congratulations and thanks to Graham Hollis for all the work he put into this improvement to our web presence.

Jim Endsley spoke about our participation in the Antique Steam and Gas Engine Museum Exhibition to be held in June. Jim told about the museum and the activities during the event. He showed some photos of our display from last year and told what we might expect this year. He encouraged everyone to participate in our display. He will start a poll on the Yahoo Group to determine which Saturday we will attend, June 18 or June 25.

## Presentations

Ron Gerlach spoke about refurbishing the crank journal on a large engine he is restoring. This is a husky 16HP engine manufactured by the West Coast Engine Company of San Diego California in 1915. The company supplied engines for use in mining operations all over the world. The engine is a side shaft model with a 7" bore and 16" stroke and 4' diameter fly wheels. It weighs about 5,000 pounds. Ron showed pictures of the engine when he acquired it from a collector in Paso Robles and also images describing the work rebuild the crank journal.



TYPICAL INSTALLATIONS OF WEST COAST GAS ENGINE LTD SHIPPED IN DAYTON, OHIO, MOHAVE COUNTY, ARIZONA.

After disassembling the main and rod caps Ron found the crank journal was .007 out of round and badly pitted. Because of the weight and size of the crankshaft and flywheels, he decided to restore the crank journal by lapping with the crank and flywheels rotating in the engine frame. Ron adapted a three sheave pulley to the crankshaft and built an appropriate motor pulley to turn the crank with an electric motor at about 300 rpm. He then built an aluminum lapping block to fit the journal. The lap was attached to a round bar sliding through a crosshead like mount fastened to the frame about where the cylinder would be. This ingenious fixture allowed the lap to be moved side to side on the journal while it was rotating. The lap was charged with abrasive and tightened down on the journal. Only a few hours were required to remove the pitting and make the journal round again.



Ron's presentation included photos of the lap and engine parts, graphs showing the dimension of the journal during the process and a video of the lapping process. This was a very interesting presentation about work on a real engine.

Larry McDavid presented some interesting observations about center finder tools used in the shop. The basis of the presentation was a video from Suburban Tools about the use and resolution of some popular center finder tools. Larry pointed out some interesting things about the conclusions drawn by the video. He conducted similar tests in his shop and presented his findings with photos and charts. Larry showed the proper use of the cylinder type edge finder and the results of tests where he experienced repeatability of less than .0004" using a DRO with .0002" resolution. He also refuted claims that spindle or chuck runout can cause incorrect results. Larry also presented information about DRO systems installed on the mill and lathe in his shop and showed a Titan 50X centering microscope and a Haimer 3D Sensor.



This was a very enlightening presentation that generated a lot of discussion about using these tools. The discussion continued in the Yahoo Group after the meeting. Larry's presentation may be found in his folder in the files section of the Yahoo Group.

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The 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 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 class room AJ115 on the first floor 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 or make a comment about the newsletter, contact the editor, Ken Rector, via the SCHSM Yahoo Group, or at [kdrhoo@yahoo.com](mailto:kdrhoo@yahoo.com).