

The Crank Calls



June 2014

President	Don Jones	(510) 566-3153	dj712@sbcglobal.net
Secretary	Bob Kradjian		bkradjian@aol.com
Treasurer	John Gilmore		jpgilmoreco@aol.com
Events	Ken Hurst	(707) 257-2481	icengine@comcast.net
Tech Topics	Carl Wilson		toolcarl@comcast.net
Editor/Printer	Larry Zurbrick	(408) 448-5752	baem_editor@pacbell.net

MEMBERSHIP \$25.00 US

Contact John Gilmore at
jpgilmoreco@aol.com

NEXT MEETING

June 21, 2014 at
Chabot College, building 1500
25555 Hesperian Blvd, Hayward 94545
Doors open at **9:00 AM**
Meeting starts at **10:00 AM**

Upcoming Events

SWAP Meet at June Meeting

BAEM meetings:
3rd Saturday of the month except December

MEETING NOTES

May 17, 2014
Bob Kradjian

President Don Jones called the meeting to order at 10:00 am.

VISITORS: There were no guests or visitors.

SWAP MEET: Bring items for sale at the June meeting! Time for those treasured items to swap workshops!

MEETINGS: Our showing of engines at the Roy Brizio Open House on May 10 was a pleasurable outing, as usual. The Hot-Rodders that attend this event are knowledgeable and very appreciative of the effort required to build a functioning miniature internal combustion engine. John Gilmore's V-8 received especially positive comment.

The Hillsborough Concours is scheduled for July 20. The organizers have not gotten back to us with details concerning our appearance.

For us to consider is a possible repeat club appearance at the Ironside Concours d'Elegance at the Ironstone Winery in Murphys, California. The date will be September 27. Last year Ken Hurst and I made an appearance and had a good time. It's a lovely show in a fabulous location. However, it is a substantial commitment, as an overnight stay is nearly a requirement. It's a very long drive from the Bay Area.

GOODGUYS: The boat pond issue for the August West Coast Nationals was discussed. The conclusion reached is that there will be no boat pond. There were too many problems of budget and oversight of the activity.

However, we have pledged to show engines with the Golden Gate Yacht Club folks during their show at Spreckels Lake on September 21. They will support our August WEME show in return.

Should we have Robotics at WEME? Perhaps, but there are issues of size to consider. Steve Hazelton will look into this situation and give us a report.

In this connection, Mike Rehmus urges us to volunteer as mentors for High School shops that have robot-building programs.

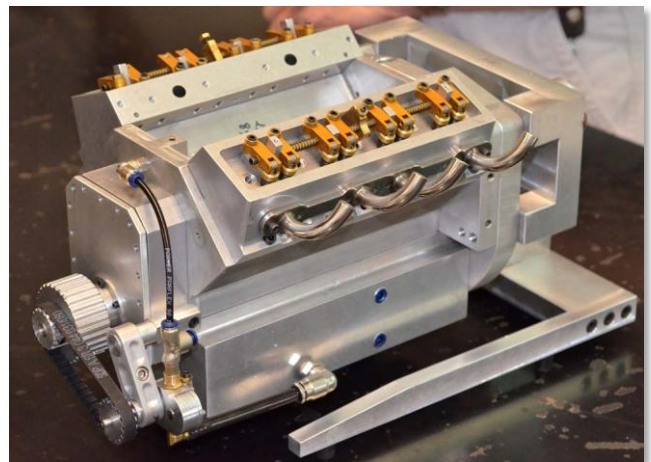
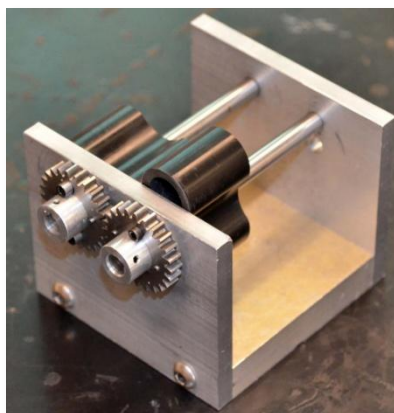
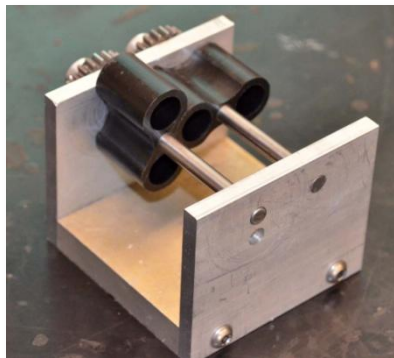
TREASURER'S REPORT: John Gilmore says we are solvent, but we have to meet our sharply increased insurance obligation. Mike Rehmus provided us with information on our club insurance. He has found coverage for less money and with better coverage than we are currently afforded with EDGE&TA. However, this will result in severing our relationship with EDGE&TA and loss of our Branch 57 membership. John Palmer is very active in EDGE&TA. We may have some information to share at the June meeting.

Club dues are payable. Please remit dues to treasurer John Gilmore at 1414 Linton Place, Martinez, 94553.

CLUB BADGES: If you need a badge, contact Mike Rehmus (mrehmus@byvdeo.com) who has offered to produce them.

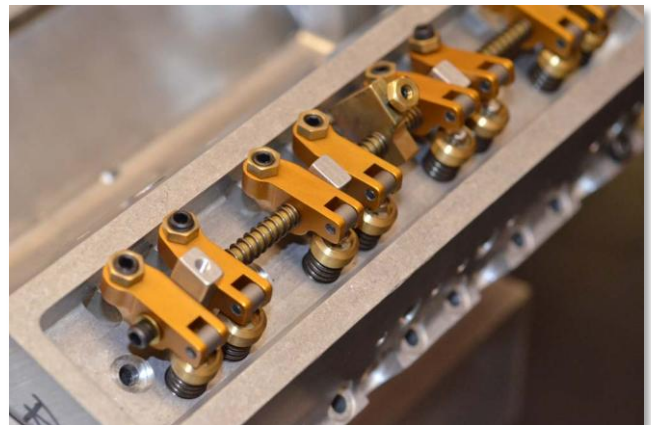
BITS AND PIECES:

Jim Piazza showed us his prototype supercharger mock-up. Discussion followed about rotor clash, and rotor adjustment. He used a keyway for one shaft and slotting for the other shaft to allow for adjustment. Jim provided details on how he cut the lobes using his CNC mill.



John Gilmore brought us up to date on his modified Black Widow V-8 build. The pistons are now installed, the oil pump and return lines are in place, the pushrods are done and the Hall effect parts are on order.

Remember that John is using all billet material for this V-8. There are no castings used. He has also made drawings for all parts.



He has made no provision for cooling this engine; he will run it "dry". We have proved this concept over a period of several years with many of our show engines that run dry without problems. This engine and Jim Freel's V-8 are important building projects and are continuing to expand and refine the pioneering work of Ken Hurst and Dwight Giles on the original Black Widow. I know of no other club that is pushing forward with this type of model engineering.

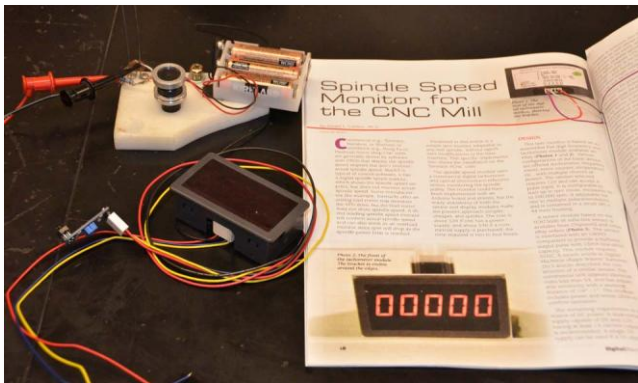
Mike recommended the use of a simple light bulb to time ignition point opening. He favors the use of points as compared to Hall Effect ignition when

possible. Point timing is more accurate than magnet timing through a window.

Pat O'Connor showed a 1987 2.3 liter Merkur camshaft and other valve assembly parts. This sparked a nice discussion about overhead cam valve lash adjustment, hydraulic lifters, camshaft lubrication and a host of related subjects. The interesting Merkur cam is built from a hollow casting with hardened lobe surfaces.



I showed the practice of mounting “cheeks” for supporting the block of a model engine. This removes the need for machining lugs out of billet and a lot fewer chips on the tray. It also allows for more design flexibility and eye appeal than simple tabs.



Steve Jasik discussed an article devoted to building a device to record spindle speed. It uses an infrared

optical sensor. He showed the parts he ordered from Asia via e-Bay that he is using to complete the build. The part total cost is about thirteen dollars.

TECH TOPIC:

President Don Jones gave a comprehensive talk on the subject of knurling. This was part of a NIMS project for his students here at Chabot.

“NIMS” stands for: National Institute of Metalworking Standards.

Scissor knurling versus pressure knurling was discussed at some length. For example, when using pressure knurling, how much will the part “grow” with the displaced metal? Also, how does the type of metal influence the amount of “growth”. Types of knurl sizing was also discussed, they use the “medium” knurl at Chabot. How to index mesh knurling on repeated passes was also discussed. Don found that the venerable MSC catalog has a detailed section on knurling which includes the growth issue. Jim Freel says that he usually starts at 0.015” undersize for his knurls, which seems like a good starting point.



Don has the students making a steel hammer to give them the experience of turning between centers, cutting tapers, grinding, carburizing, threading, and drill press use.



While knurling, the need to keep the work piece clear of small metal fragments with a file card, was stressed. Another tip was introducing the pressure knurl tool at a very small angle from ninety degrees, perhaps just one or two degrees, to release some of the pressure on the centers.

WESTERN ENGINE & MODEL EXHIBITION

Print this form, fill it in and send it to:

WEME
1521 Queenstown Ct.
Sunnyvale, CA 94087

If you have any questions please contact the Exhibit Coordinator at
opoconnor@aol.com or 408-733-3710

Name: _____

Address: _____

City _____ State _____ ZIP _____

Telephone _____

Email Address _____

Guest Name _____ (Limit one per exhibitor)

Are you a member of a club? _____

If yes, which club _____

Check the amount of table space you will need. Tables are approximately 8 feet long and 30 inches wide.

____ Half Table ____ One Table ____ One and a half Tables ____ Two Tables ____ Three tables

note that the show management reserves the right to limit the amount of space for each exhibitor.

Additional needs: ____ Air ____ Electricity ____ Other

Please indicate the type of models you will be displaying

Please read the WEME Exhibitor Information pages at <http://www.wemeshow.com/>