

# The Crank Calls



July 2013

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## **MEMBERSHIP \$25.00 US**

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### **NEXT MEETING**

July 20, 2013 at  
Chabot College, building 1500  
25555 Hesperian Blvd, Hayward 94545  
Doors open at 9:00 AM  
Meeting starts at 10:00 AM

### **Upcoming Events**

August 23-25 – WEME @Goodguys Pleasanton

BAEM meetings:

3<sup>rd</sup> Saturday of the month except December

## **MEETING NOTES**

June 15, 2013

Carl Wilson

**EVENTS:** The Western Engine and Model Exhibition, August 23 – 25 at the Alameda County Fairground, Pleasanton, CA is fast approaching. It is time for all exhibitors to sort through their collection, and get engines and other goodies ready for showing. Please sign up for the number of tables, electrical, and air connection that you need ASAP. Exhibitor registration and information forms are available on the club website – [www.wemeshow.com](http://www.wemeshow.com) – or from Pat O'Connor [opoconnor@aol.com](mailto:opoconnor@aol.com) or 408-733-3710.

**TREASURER'S REPORT** Ken Hurst has retired as club treasurer, a post that he has held for many years after his term as club president. Thank you Ken, for the many years of service to the club. John Gilmore has taken up this job in addition to his work on WEME, the club show.

**MEETING NOTES:** Our annual Swap Meet and Junk Sale did not exactly live up to its name as there was little junk. There were lots of very nice tooling for sale by Mike Rehmus, Dick Pretel, John Gilmore and others. Unfortunately, the tooling sold by John was from the estate of Steve Myers and the proceeds went to the family. Thanks, John, for undertaking this responsibility.





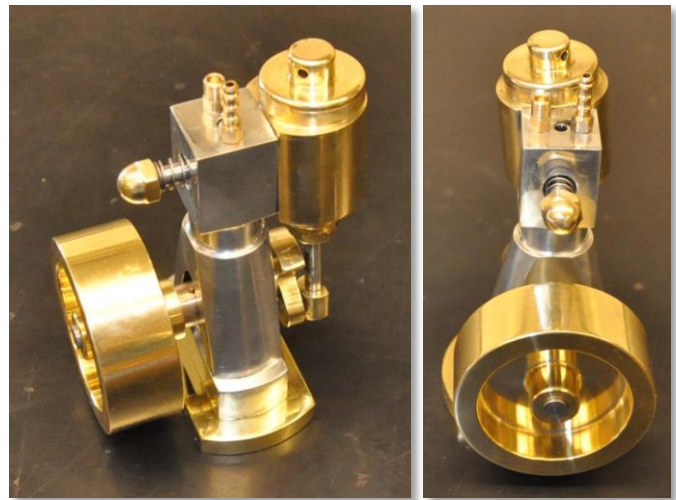
There was one piece of club business transacted at the June meeting. Mike Rehmus asked for club member approval of \$500 for an advertisement for WEME to be run in Home Shop Machinist and Digital Machinist. This was passed by a show of hands.

**FIRST POPS:** No first pops were reported

### **BITS AND PIECES:**



Up first for Bits and Pieces were the dynamic duo of Mike Rehmus and Dwight Giles. Mike has been redrawing the plans for a double acting oscillating cylinder steam/air engine from original drawings found in Popular Science, April 1941. He showed his work to Dwight and was rewarded



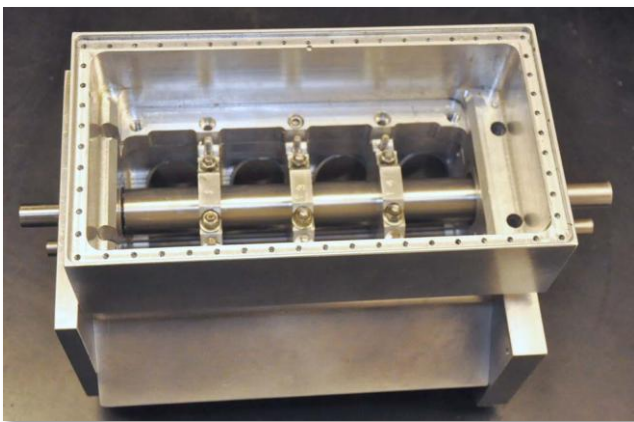
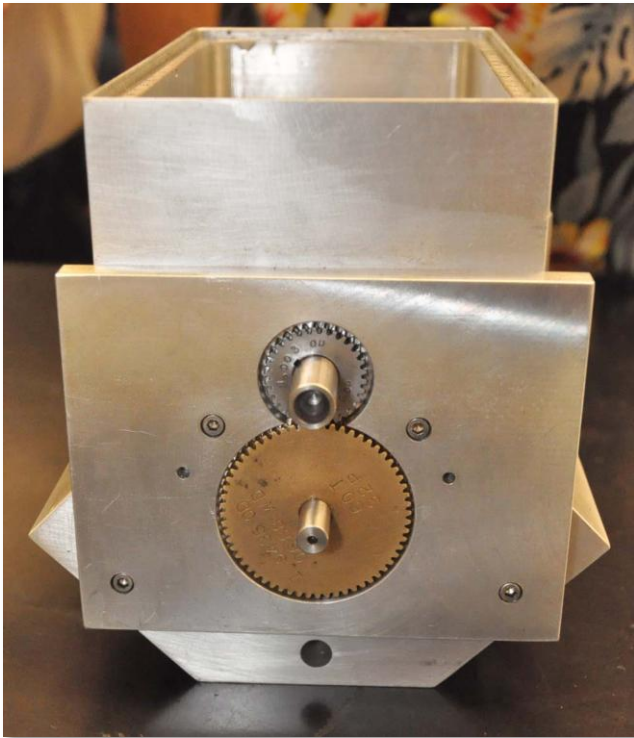
with a set of four engines in return. Dwight said that he made two engines with standards from 6061 aluminum, then made two more standards from 2024. After all that work he figured he might as well finish the engines for a total of four.

Most of the discussion was about the use of Turcite, a self-lubricating Delrin product, for the piston ring. The rod stock was turned to size, parted off, and cut open with a 0.006" thick saw. The aluminum piston was fit to the brass cylinder with 0.006" clearance. The bored cylinder was cleaned up with wet and dry paper and polished. Then the finished assembly was run in on the lathe at 1250 rpm for 5 minutes. Dwight said that it got hot and squeaked but when it was cool the fit was correct and the engine ran smoothly with no binding.

The discussion of Turcite piston rings was followed by a conversation on the use of Turcite in machine tool rebuilding and that was followed by a discussion of 3 dimensional printing, also known as stereo-lithography, or additive machining. 3D printing can make plastic and metal parts from CAD designs either for end use or for patterns for sand or lost wax casting of metals. This emerging technology will be of great interest to modelers. A driver and pony truck wheel for garden scale steam engines by Dennis Mead was on display. These were done on a SolidDoodle machine in ABS plastic.

Dwight Giles returned to the front to remind modelers to place the name of the builder and date somewhere on the model. Inquiring minds may at

some time in the future wish to know the provenance of models, tools and other items made by model engineers.



John Gilmore finished the block of his V8 and plunged ahead into the camshaft drive gears. These are custom fitted because the center distance from the crankshaft to the camshaft is designed to fit the size of the engine not the calculated center distance for standard diametral pitch gears. Dwight helped John design and machine a pair of gears to the necessary diametral pitch.

John reported that his hot rod seen at last year's Western Engine and Model Exhibition ran well for

a 1900 mile 10 day trip through Nevada, Oregon, Washington, and Idaho – 25 mpg!



Carl Wilson displayed four steam whistles made from castings. Three of them were small, with bell diameters of  $\frac{3}{4}$ " and 1". Two of these are replica whistles for Cretor's popcorn engines. The 3" diameter 4 note chimes with copper bell was made from a casting by John Grant of West Valley Live Streamers. The top of the bell was spun from an old beat up sheet of copper over a plywood former. Not a good idea, the plywood was too soft and the bell was hard to remove. Carl described the sound as "authoritative" on 90 psi air. Neighbors must love him.

The meeting closed with a sale of kits donated to the club by Roger Butzen. Roger is retiring and moving to Texas and these old projects that were unlikely to be built were now surplus. There was a partly finished Hercules (Bob Shores), a pop-pop boat, a coffee cup low delta T Sterling engine, and (oops, my notes are a bit confused here), another Jerry Howell engine kit. Thank you, Roger, and best wishes for your retirement.

All photos in this month's newsletter are by Jim Piazza.