

The Crank Calls



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MEMBERSHIP \$25.00 US

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NEXT MEETING

**February 17, 2018 at
Museum of American Heritage
351 Homer Avenue in
Palo Alto, CA**

Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

BAEM meetings 3rd Saturday of the month

- February 17, 2018 @ MoAH, Palo Alto
- March 17, 2018 @ GGLS, Tilden Park
- April 21, 2018 @ GGLS, Tilden Park

MEETING PLACE FOR January 20th

IMPORTANT NOTE!

The February 17, 2018 meeting will be at the Museum of American Heritage in Palo Alto. The address is 351 Homer Avenue in Palo Alto. Go to: moah.org for driving instructions and information on this fine facility. Thanks to Steve Jasik for arranging this.

MEETING NOTES

January 20, 2018

Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:03 am.

Our February meeting will again be held at the Museum of American Heritage in Palo Alto. Thanks to the good folks here who have offered their fine meeting room to us, and thanks to Steve Jasik for connecting with them. See moah.org for details on the Museum of American Heritage.

Note: we plan to meet at the Golden Gate Live Steamer's facilities for the months of March and April.

VISITORS: Larry Zurbrick came with a co-worker, Douglas Woolverton.

Larry Pezzola is a former member who re-joins us today. Welcome back, Larry. He is a clever builder who was with us in the old Paul Bennett shop days. Brian and Cynthia O'Connor re-visited us again, thanks for making the trip.

FIRST POPS: None this month, unless you are willing to give Steve Jasik credit for his plywood "steam engine" featured later in this report.

TREASURER'S REPORT: We are solvent.

Dues for 2018 are now due.

Dues are \$25 a year. Starting with the calendar year.

Check payable to BAEM

Mail to:

Deirdre Denham
1937 Merchant St.
Crockett, CA 94525

Or bring dues to any Meeting.

Steve Hazelton reports on two videos he recently posted on You Tube. One features Peter Lawrence and the other features our favorite 3D Guy, Eric Harrell. The best way to access these is to go to You Tube and type in "Steve Hazelton" and riffle through the 57 videos that the very prolific Steve has posted over the past few years.

CLUB BADGES: If you are a member in need a badge, contact Mike Rehms (mrehms@byvideo.com) who has offered to produce them.

FIRE MARSHALL REPORT:

The Secretary reported on the limited progress made in determining our status regarding running engines in the building. A fact sheet concerning our club and our shows was prepared and given to the Fire Marshall for the Pleasanton Fairground area. The Marshall has promised to give us a report in ten days.

Follow up insert. The Marshall has provided a reference to the California Fire Code Section 313. The code is lengthy, but the critical section states that internal combustion engines shall not be operated within a building unless the building or rooms are constructed for such use in accordance with the California Building Code. We will continue to explore other possibilities, such as limiting the size of the engines and the run times. This does not explain how the Amigo Indoor Go-Kart racing facility in Livermore can operate with large Honda 270 engines buzzing around. The go kart people monitor for CO2 ppm levels. If, after appeals, we are limited to outside running---the Good Guys organization has offered a canopy for sun protection.

BITS AND PIECES

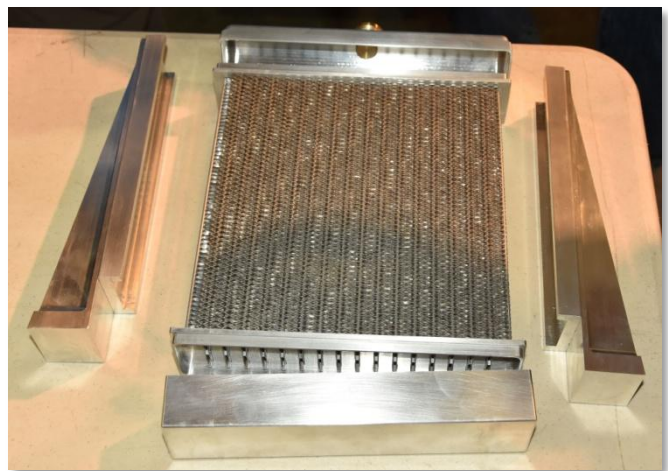


Steve Jasik was fascinated by a company, Ugears, in Ukraine that makes complicated mobiles and machines in wood. The kits are laser-cut in lovely, thin plywood. He showed two kits, one was a

mechanical flower made from 101 pieces. The flower opens and closes with geared hinging. Go to You Tube and type in “Ugears” to see the line of kits and many construction videos. It took one hobbyist four hours to build the flower. Steve also built the steam engine. He had to machine a Delrin piece to help the build. This would be a great project to ease your grandchild away from his or her digital devices.



Steve told us of a huge lathe he bought at a surplus sale for a tiny fraction of the 100,000 dollars it originally cost. Where would Steve place the monster? Why on his driveway, of course!



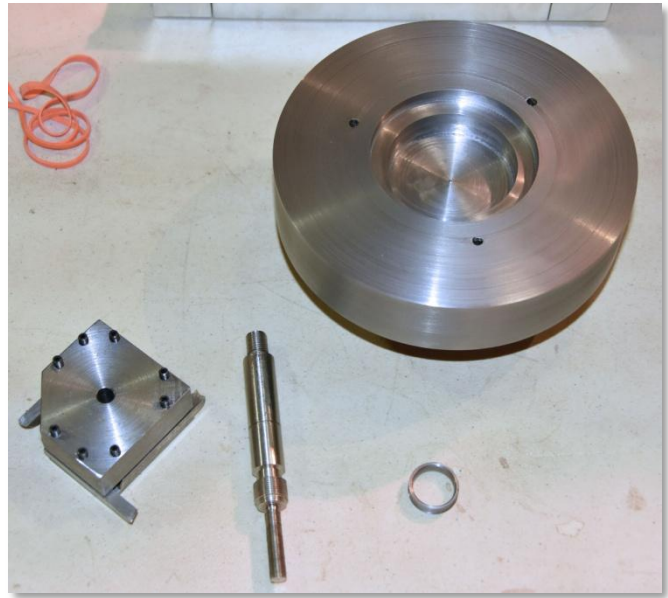
Jim Freel showed us his progress on a radiator core and shell for his Black Widow V-8. It is made up to his usual extremely high standard. He plans to paint the core black. This brought up a brisk discussion concerning the choice of paint versus anodizing or metal blacking. He is using an epoxy to join the core with the upper and lower tanks.



The 6061 aluminum tank top took eight hours on his three-axis Bridgeport CNC machine. The filler cap is threaded, right up to a shoulder.



Next shown was a George Luhrs original single cylinder "Briggs and Stratton-like". This tiny gem is only .074 cu. inch in displacement. The bore is around one-half inch. The miniscule fuel line is fashioned by stripping the insulation from a single-strand copper wire. Paul mentioned that Teflon insulated wire will furnish a "tubing" supply that will hold up better to gasoline. Mr. Luhrs said that machining the tiny valve stems was a major challenge.



Jerry Franklin made his own tool-post modification for his Prazi lathe. The original holder was flexing excessively.

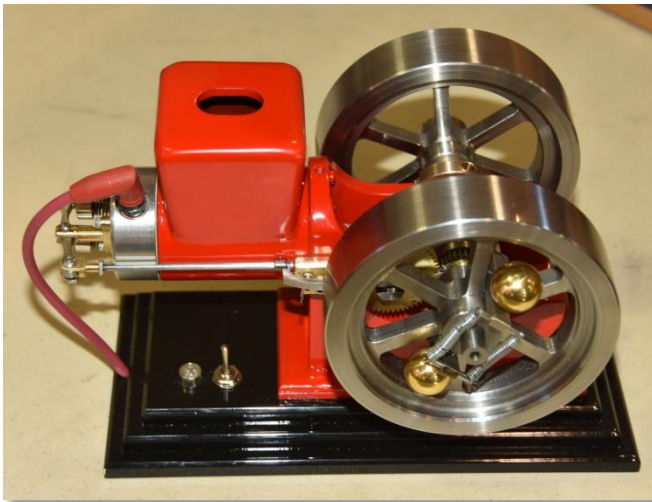
An ancient lathe has recently made its way into his shop. It's a hundred year old Whitworth-Blaisdell. The weight is around 1600 pounds for the 14-inch swing lathe, with a 5-foot bed.

He also is busy cutting threads, creating an adaptor plate for his chuck, and otherwise happily making chips.

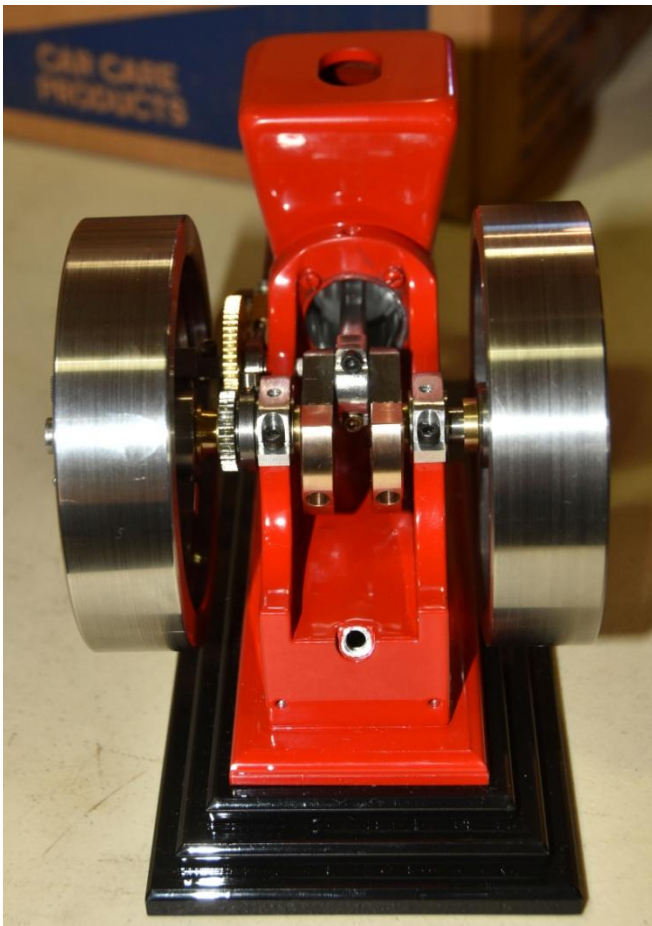
Mike Rehmsus showed us the Ford automotive coil over plugs that are available for around \$6.00. Be aware that some coils have extra signal wires for low voltage meter output. Crossing these with 12 volts may destroy the unit.

He is also setting up a fourth axis for his CNC mill. He will power it with his harmonic drive recently acquired from Israel (see last month's newsletter for a short description of these wonderful devices). Paul Denham supplied the electronics to adapt it to Mike's needs.

The Chinese-made spindle will be housed in a headstock, footer, and tailstock he plans to cast in ZA-18 aluminum alloy. This is a very nice and ambitious project!



Paul Denham showed his latest touches on his modified GEM horizontal single. His original hit-and-miss mechanism, with the lockout arm, works well at low rpm's. He is using a piezo coil to energize the spark plug.



He followed a procedure detailed in Model Engine News (MEN) to balance the crankshaft. The formula for balancing involves weighing the

components (piston and connecting rod) and plugging the values into a formula to determine the proper weight. That weight is added to the journal for balancing. To access the MEN article, proceed to modelengineneews.org; then click on "Search This Site" and select pages 9-12 for an article by the venerable E.T. Westbury. This web site is an absolute treasure trove of excellent model engine building information. Check it out if you haven't seen it.

All that remains to complete this engine is the carburetor. (Post meeting note: Paul sent out a video eight days after the meeting showing the engine running nicely. He adds that the compression is too low if built by the plans. The rod must be made .1875 inch longer).

The meeting was adjourned at 12:15 pm for selected members to tour the lovely Museum of American Heritage in the adjacent 1880's home.