

The Crank Calls



President	Paul Denham	pedenham@comcast.net
Secretary	Bob Kradjian	bkradjian@aol.com
Treasurer	Deirdre Denham	pedenham@comcast.net
Events Coordinator	Steve Hazelton	steve.hzltn@gmail.com
Webmaster	Mike Byrne	mgbyrne3@comcast.net
Editor/Printer	Larry Zurbrick	baem_editor @pacbell.net

MEMBERSHIP \$25.00 US

Contact Paul Denham at
pedenham@comcast.net

NEXT MEETING

**July 21, 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

- July 21, 2018 @ MoAH, Palo Alto
- August 18, 2018 @GGLS, Tilden Park
- September 15, 2018 @ MoAH, Palo Alto

IMPORTANT NOTE!

The July 21, 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.

MEETING NOTES

June 16, 2018

Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:16 am in the meeting room at the beautiful Golden Gate Live Steamer's facility.

VISITORS: There were none.

FIRST POPS: Jim Piazza had a PM Research steam engine nearly finished to bring today, but couldn't find a needed tap to finish the task. Maybe next time?

REPORT ON THE FIRE MARSHAL:

We had a welcome and courteous visit from Fire Marshal, Cesar Avila, who came to visit our group and see our engines running. The ruling against running internal combustion engines inside a non-purpose built building stands. Cesar also provided

us the names of officials to approach if we wish to pursue a variant or a new ruling. At present, we are planning to go ahead with the WEME Show and run engines outdoors.

TREASURER'S REPORT: We are solvent and accepting dues for 2018.

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.

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

EVENTS: The Golden Gate Live Steamers hosted Open Houses on June second and third. Our members were asked to display engines, and attended both days. We have had a warm reception at previous such excellent events. This year was no exception except that the crowd was a bit smaller than previously seen.

Steve Hazelton reported on the upcoming Mini Maker Faire to be held on June 30 and July 1. This to be held at the Solano County Fairgrounds in Vallejo.

BITS AND PIECES



Paul Denham made a batch of 32 rocker arms out of aluminum tooling plate. They developed cracks around a narrow rim surrounding a 10-32 threaded hole. Next, he went on to another set of 32, this time from 6061. This also, was not strong enough and showed weakness. The final set was from 2024 and made the grade!



In a recent shop visit, Dwight Giles showed Paul an antique Johnson four-cycle engine. When attempting to turn it over they discovered a badly stripped-out gear. It happened to be a 12-diameter pitch, 34 tooth, left hand, and 30 degree helical gear. Now, since Dwight turned out aluminum blank and Paul had a four-axis milling machine, what would prevent him from machining a helical gear? The G-Code for this task was from Gearotic. Each tooth requires three passes, one creates the root, another

cleans the root, and the final pass cleans and shaves the tangential curves. It requires about 32 passes with a tiny 0.084" ball-end mill. After five hours of continuous CNC milling, Paul had the nicest piece of his machining yet---he said. It will be a shame to hide it in a greasy crankcase!

The right-handed gear versus left issue is solved by placing the gear in your, say, left palm. If it lies "correctly", it's a left hand gear.

Member Glenn Christoffersson needed an odd-sized piston ring for his GEM hit-and-miss engine build. He asked for some assistance from Dwight. This resulted in Dwight making a new piston, cylinder, and the rings. He also provided a tapered tool is used to compress the ring (s).

Steve Hazelton has a side business making trophies. He needed a precision metal shear to very accurately trim the pieces. He found a 39-pound, six-inch jeweler's guillotine shear. It's not only heavy, it's expensive---nine hundred and nine dollars. This is from PepeTools, an American company. It will cut up to 16-gauge gold, silver, or copper. It's a lovely piece of engineering and a delight to use. It results in precise, paper-thin, cuts without burrs, or curling.

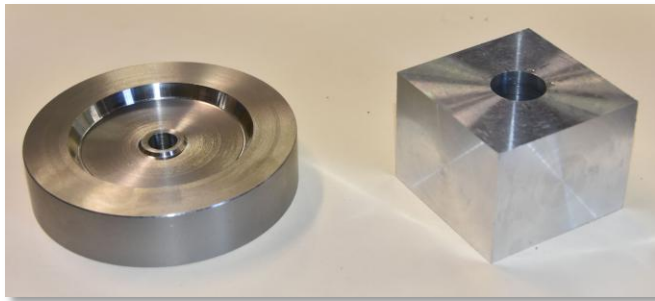
Wes and Steve were working on the club group build. All was going well until two taps were broken. Steve researched the technique of dissolving the tap in a warm solution of alum. The surrounding aluminum (or copper) should be unaffected by the alum solution. Steve tried this and gave us a report. Alum powder is easily available on E-bay or Amazon, at roughly eight dollars a pound. Numerous videos showing the details of application are seen on You Tube. He made a super saturated solution of alum and "cooked" it overnight in a one-dollar crock pot from garage sale. This resulted in complete dissolution of the offending taps!

Steve decided to add to the knowledge by making his own video that he will show the group after the meeting. He will also post it on You Tube. Steve has already posted over 57 videos on You Tube featuring our model activities and midget auto racing. It's an impressive and well-done body of work including interviews with our club members and men from the racing fraternity. Congratulations, Steve!

Jerry Franklin tells us of his adventures with an old Whitcomb-Blaisdell lathe from the 1905 to 1921 era.

He is making a chuck adapter for a used Japanese chuck. The original chuck was a 6" three-jaw. He is adapting a four-jaw ten-inch chuck to the backing plate.

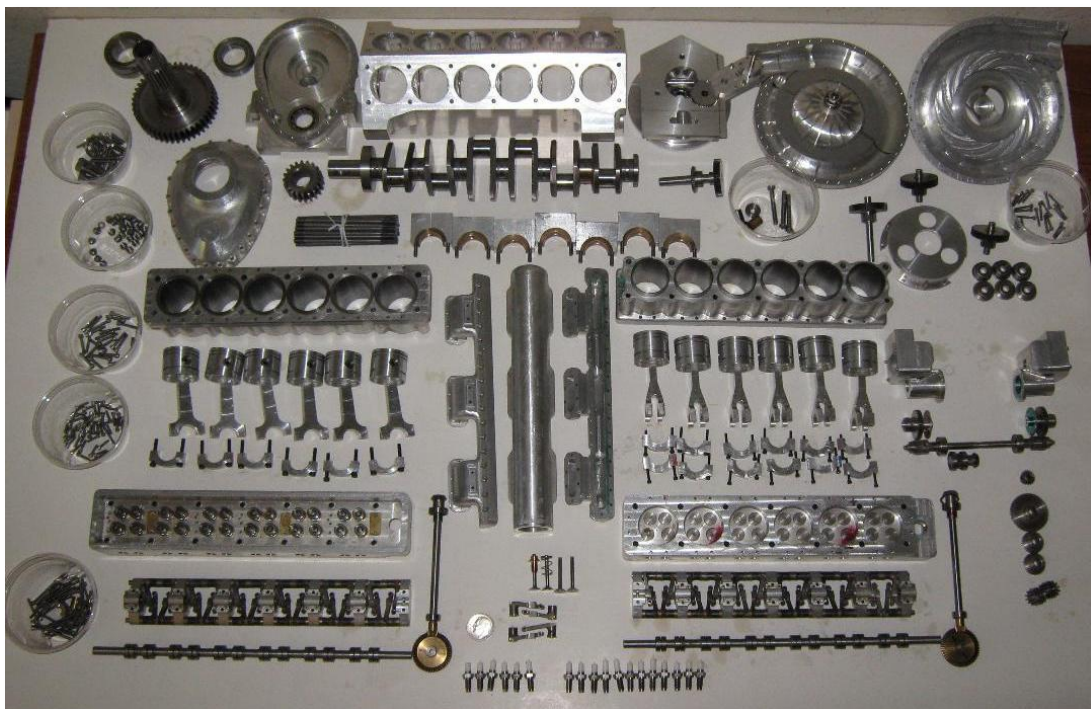
The Internet informs us that Whitcomb-Blaisdell was a company in Worcester, Massachusetts. They made a large variety of lathes and shapers.



Jerry is building the lovely Bob Shores "Silver Angel" vertical single hit-and-miss engine. He is using a tapered crankshaft arrangement in place of a keyway. He described his initial adventures with the flywheel and the crankcase. Congratulations, Jerry,

CORRESPONDENCE:

Peter Lawrence sent a photo of his disassembled Merlin V-12 from about one year ago. He notes that several parts are absent including the new oil pan, oil filters, oil pumps, oil pressure regulator, and water pump which he has completed in the year since the photo was taken.



on this building project. Please keep us informed of your progress.

Speaking of Hit and Miss engines, a friend recently purchased such an engine from Banggood in China. He was amazed at the quality and price for a totally finished engine, complete with an ignition module and a tank. He described the fit and finish as excellent. Taking a look at the Banggood site under "Full Metal Combustion engine" you will find a pretty, blue anodized, engine for only \$250. But here is the "kicker"---this is a blatant theft of the David Kerzel design most of us have seen. Kerzel and the late Bob Shores were together in the Florida engine club. The plans are available, and free, on the Internet but not for commercial purposes. For an unpacking and run video on You Tube, go to "Chinese Hit & Miss Gas Model Engine".

A do-over of the crank webs, with some whittling on one side and addition of weight on the other, will result in a nicer engine. Also needed is a weaker balance spring for the flyweights. Wait a while and I'll have one to show at a club meeting. It's on back order now.