

The Crank Calls



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MEMBERSHIP \$25.00 US

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NEXT MEETING

**Saturday, November 18, 2023, at the
Golden Gate Live Steamers clubhouse site in
Tilden Park, Orinda, CA**

Gate opens at 9:00 am
Meeting starts at 10:00 am

Upcoming Events

- Nov 18: BAEM meeting at GGLS
- Dec 9: BAEM meeting/potluck at GGLS
- Jan 20: BAEM meeting at GGLS

See below for more details regarding events. Watch Crank Calls, BAEM emails and BAEM web page for updates. BAEM meetings are usually 3rd Saturday of the month except December.

MEETING NOTES

Bay Area Engine Modelers met inside at Golden Gate Live Steamers on October 21, 2023. There were 20 members in attendance.

President Paul Denham opened the meeting by welcoming attendees.

NEW MEMBERS/VISITORS

BAEM members are reminded that visitors are welcome at our club meetings, and we're always looking for new members.

TREASURER'S REPORT

President Paul Denham reported regarding club finances. He reported that Deirdre, our club treasurer, had resolved the tax-free IRS filing problem, but she remains pissed off at the bureaucratic hassles. He reported the club finances are "OK".

2023 dues of \$25 dollars are due, and checks can be mailed to Deirdre Denham at 1937 Merchant St, Crockett, CA 94525. Make checks payable to "BAEM".

CLUB BADGES

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

NOTABLE CLUB MEMBERS

Dwight Giles has just turned 90. Dwight continues to attend club meetings and share his considerable workshop wisdom.

Mike Rehmus was back in attendance after some medical down time. Mike has published 38 issues of Model Engine Builder which, with Dwight's collaboration, have captured a remarkable volume of model engineering lore.

Dwight and Mike have been great assets to the Bay Area Engine Modelers club and the larger model engineering community. We greatly appreciate their generous contributions of time, support, and knowledge.

SHOWS AND EVENTS

-EDGE&TA

Ray Fontaine attended the Early Days Gas Engine and Tractor Association ("EDG&TA") Branch 13 Antique Equipment Show, held October 6 & 7 at the Mahon Ranch in Elk Grove. This was the first show at this venue, and Ray shared an excruciating story of his attempts to find the site, which involved backing his trailer out of several dead-end farm lanes. He noted that attendance was largely Branch 13 members with very little public participation.

-Maker Faire

The Bay Area Maker Fair was held at Mare Island in Vallejo, over two weekends in October. You can learn more about the Maker Faire from its website: <https://makerfaire.com/bay-area/>

This year, our club displayed engines at the Maker Faire. Steve Hazelton coordinated our group's participation. Steve reported:

The Makers Faire was a complete surprise, meaning we did not anticipate the success of this event and the large number of "makers" who would visit our display area.

Set up was easily accessible to unload and load within the time allotted. We had 4 tables, but could have had more if needed.

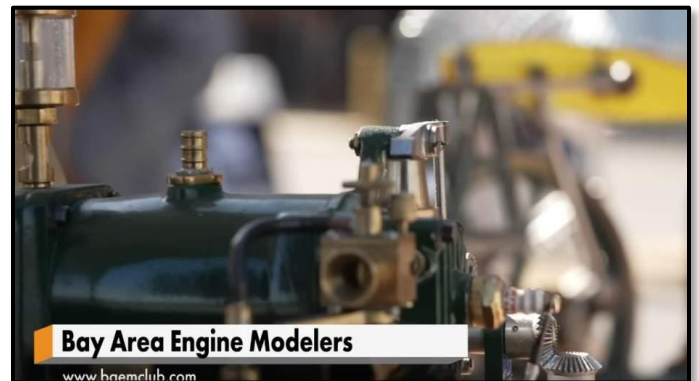
Attendees were very interested in our engines, but also interested in how to get involved with building and machining.

Our area was busy all day, each day. Care had to be taken to keep inquisitive children's hands off the engines, if they were running or not.

There were 8K attendees the first day and 10K the next. We did not display on Sunday due to being burned out after two days on our feet.

Next year, this should be our big show, with more members participating. It is not mandatory to display every day, so members can choose their days to attend and display.

BAEM members Steve Hazelton, Paul Denham, George Spain and Dwight Giles helped out at the show.



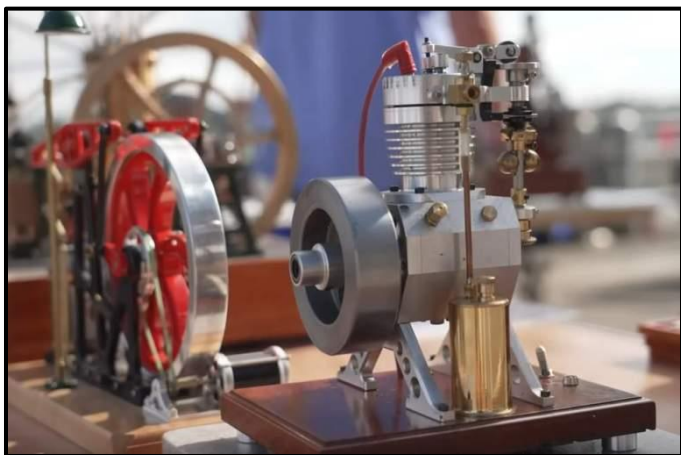
The Maker Faire promoters put together a nice promotional video about our club's engine display. It has gotten over 99,000 views on YouTube. Here's a link: <https://www.youtube.com/watch?v=iZLUZSj1j6A>



Steve Hazelton describes the Gilmore V-8 at the Maker Faire



Paul Denham provides some interesting commentary about some of the engines on display at the Maker Faire



Because our Maker Faire display was outdoors, we were permitted to run engines, which attracted lots of attention

Paul reported that the large enthusiastic crowd kept him so busy “explaining stuff” that he didn’t have time for lunch. Children were particularly attracted to the running engines. George noted that the questions from young adults suggested little prior exposure to how engines operated.

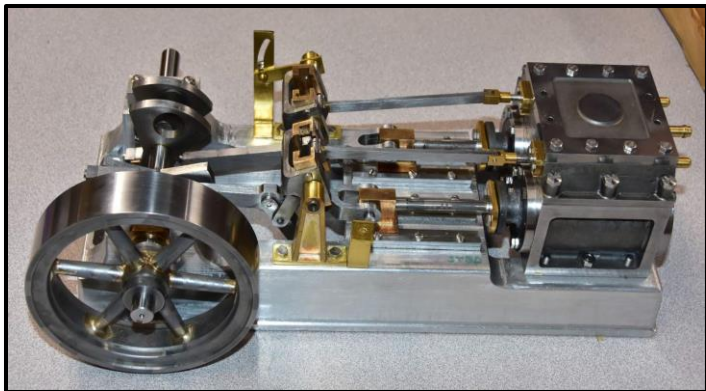
FIRST POPS

Peter Lawrence ran his newly completed Muncaster horizontal steam engine with Joy's Valve Gear. Peter used the 1905 Muncaster plans to design his two thirds scale version.



Peter runs his Muncaster

Peter noted that, with the collection of parts he had last month and the need to make both a “cast” base and a flywheel, he thought it would likely take him two to three more months to complete the engine. He was a little surprised how quickly things came together.



Peter's Muncaster. Note the "cast" aluminum base.

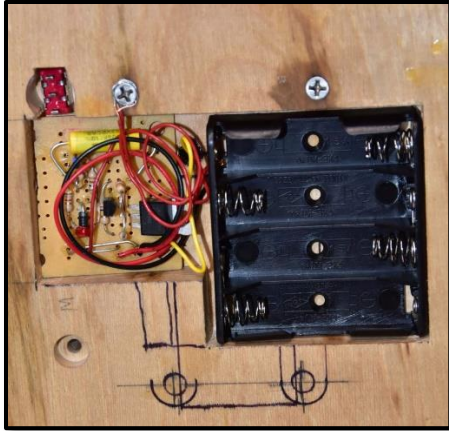
Peter once again showed his acquired mastery in aluminum TIG welding: by taking his parts to his neighbor Gary and having him do the job. The "TIG cast" base was then finish machined in very short order. The engine currently has asymmetrical resistance when turned by hand. This causes a jerky rotation when run at low speed. Peter is hoping to solve this before the next public show, so people can observe the low speed operation of the Joy's Valve Gear. The original design was 22 inches long and intended to be a lathe drive. Peter made a 2/3 scale version and believes 1/2 scale might be a better model choice. Currently, any add-ons—like a dynamo, a pump, or an oscillating slinky—would result in a heavy and unwieldy large model. Since the focus of the model is supposed to be the Joy's Valve Gear, it's unlikely that any such add-ons will be in the future of this model. He's already nixed the idea of adding a governor.

BITS AND PIECES

Peter also showed his cleaned-up ignition on his gasoline and spark Hansen vertical. The Hall effect driver circuit board and battery are now safely tucked away in 5/8 inch deep router cut recesses in the bottom of the 3/4 inch wooden base. The coil is cleverly hidden in the engine pedestal. A new addition is a dovetail slide for the Hall Effect sensor, to adjust the timing relative to the flywheel magnet. The hope is to eliminate the knocking sound it currently makes. Results are TBD!



Peter's gas/spark Hansen with hidden circuitry



*Bottom of Hansen vertical,
showing hidden circuitry*

Joel Cohen noticed the white board remnants from Peter's tech topic on compression ratios and asked if there was an easy way to predict temperature and pressure at top dead center for an engine with 10 to 1 compression ratio. Peter's short answer was "no, there are exponential relations that preclude an easy rule of thumb." Peter built a set of tables to support his Hansen diesel design, which he captured on a 3 x 5 card. After Peter's original tech topic presentation, Mike Byrne produced a written tech topic for this newsletter, including a spreadsheet with the calculations performed for typical compression ratios. Joels response was roughly "shucks, I was hoping for an easy rule of thumb".

Paul Denham just completed a miter gauge used to grind tool bits. It can be used on several of his grinders. Dwight Giles' original version was shown in Model Engine Builder Issue 28. Paul used a piece of steel provided by Dwight. Paul engraved the protractor tick marks and numbers using his CNC mill. Back when he made his own version of this miter gauge, Dwight used number die punches to label the degree markings, which was a much bigger chore.



Paul's miter gauge

There were two mysterious boxes of fixtures and tubes sitting on the display table. It seems they were both parts of Dwight's V-8 production tooling. This caught the watchful eye of Lon Keeth, who has a long-term Black Widow project under way. He wanted to "pick Dwight's brain" regarding applications of the tooling. Dwight and Paul explained the tubes were used to reduce flexing while lathe turning crank pins in V-8 crank shafts. There was also a turning center assembly with drive pins for crank alignment. Mercifully, explanations of the super charger jigs in the second box were not addressed.

RAMBLINGS

Working on an interesting project? Got a great BAEM story? Share it with us here. Send us pics and project details, and your hard work will be shared with the entire club.

FOR SALE

Got something you'd like to sell? Your ad is free and will be seen by likely customers.

NEWSLETTER CONTRIBUTIONS

Your contributions to this newsletter are appreciated: workshop reports, tech articles, reviews, historical pieces, whatever. You contribute, we'll figure out how to post it. Send your contributions to either or both of us. Thanks!

-Mike Byrne at mgbyrne3@comcast.net

-Wes Wagon at weswag@ix.netcom.com