

The Crank Calls



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MEMBERSHIP \$25.00 US

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NEXT MEETING

**Saturday, June 10, 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

- June 10: BAEM meeting at GGLS
- Jun 10-11: GGLS Spring Meet
- Jul 15: BAEM meeting at GGLS
- Aug 19: 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 at Golden Gate Live Steamers on May 20, 2023.

Eighteen members and no guests were present. President Paul Denham welcomed 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 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.

UPCOMING SHOWS AND EVENTS

-Jun 10-11: GGLS Spring Meet

GGLS is having its Spring Meet this June 10 & 11, and BAEM has been encouraged to show our model engines. We'll have tables, but no sun shades because weather expected to be cool. Saturday is for GGLS members, and Sunday is open to the public. There will be food available on Saturday, but not Sunday. This event is good exposure for our club, with an appreciative audience.

At our May meeting, we decided to move the June meeting to June 10, and join GGLS for their Saturday pot luck lunch. Volunteers needed, please use this sign-up:

<https://m.signupgenius.com/#!/showSignUp/5080849A8A72EAAF6-ggls2>

-EDGE&TA

Ray Fontaine (rayfontaine2@att.net (925) 784-5411) has coordinated our club's participation in EDGE&TA events. He is recovering from hip surgery, and his participation is limited. The Branch 13 website is here: <https://branch13edgeta.com/>. Check it out for their full calendar. Upcoming show of interest:

--July 27-30, 2023 Amador County Fairgrounds

Robert Facino (916) 417-8732

rtsc@netzero.com

BAEM members interested in participating in this event should contact the person listed, and let Ray know as well.

FIRST POPS

Peter Lawrence ran the gas version of his single cylinder vertical. He is also working on a diesel version. Peter shared some of his trials and tribulations he encountered:

Fly wheel wobble: resolved with a .001 brass shim and set screws.

Leaks in the water cooling plumbing: resolved by finding 1 mm o-rings that fit.

Difficulty starting cold, after reducing carburetor venturi to 4 mm: resolved by discovering the engine would start when the head was warm and then it would idle very slowly.

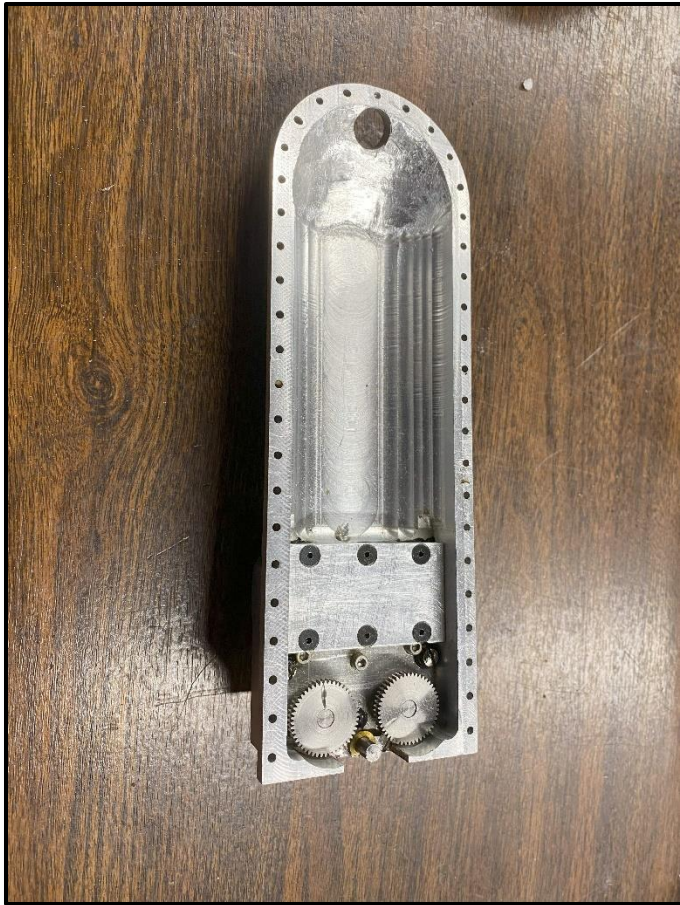
Balance issues: unresolved but suspected to be related to the heavy connecting rod.



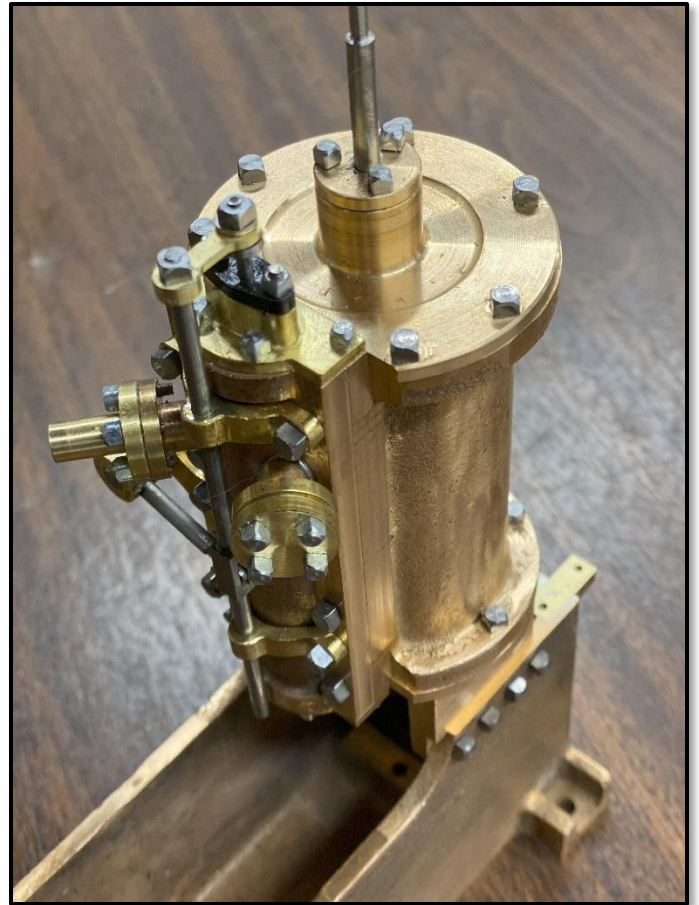
First Pop: Peter's gas-powered single vertical

Peter is also tweaking his Merlin V12, to be able to run it at the GGLS open house. Recent tuning included a fix for the leaking oil pump. Normally, Peter would lap the surfaces of the pump mechanism and inside surface of the pump cover, so they fit together tightly, without leakage. In this instance, the pump is built into the pan, making those surfaces inaccessible for lapping. Peter's solution was to use LockTite thread sealer with Loctite 7649 primer/accelerator. This created an adequate seal, stopping the leakage.

So far, he has not been able to find the correct size attitude indicator for the instrument panel, so he will be restricted to VFR operations.



Oil pan from Peter's Merlin V-12, showing inaccessible nature of oil pump mechanism



Paul Denham's Boulton & Watt 1802 Bell Crank Steam Engine, showing some of the challenging machining

BITS AND PIECES

Paul Denham is machining a model of a Boulton & Watt 1802 Bell Crank Steam Engine. The early design has some challenging machining steps. The D-shaped steam valve is first started as a solid gun metal casting. It has a .625" bore, is 3.5" long, and then must be split in half, without distorting. Paul's assessment: Trivial "NOT".

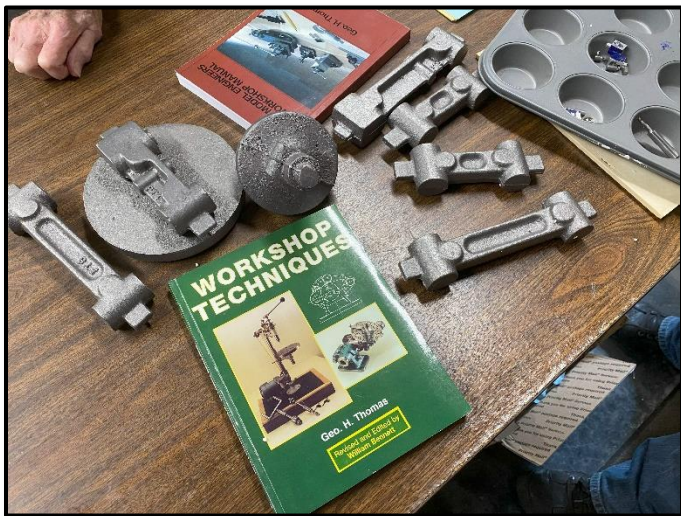
Paul also acquired a very large casting set from Jean Baker. Set is for a Rider-Ericsson Hot Air Pumping Engine model with a 3" bore (the full sized were on 8"). Paul also has a spare 2" cylinder.



Flywheel casting barely fits on Paul's lathe

The flywheel barely fit Paul's 13" throw Monarch EE. (Paul, the Deanza art department used to have a 16 inch throw Southbend if you need a larger lathe for your next project.)

Joel Hainley is machining a Universal Pillar Tool. He shared with us the castings he acquired from Martin Models, providing us with the "before" view of this project. We look forward to hearing about his progress.



Joel's next project: a Universal Pillar Tool

Joel also brought in some "practice parts" for a Philip Duclos Huff 'n Puff Steam Engine he has undertaken as a "starter" project. This engine has a 1/4" bore, 3/4" fly wheel, and overall length less than 3". Some suggested he might consider a larger, less challenging design for a starter project.

Aaron Keller took a Knight Foundry class on Green Sand Molding & Foundry Practice. (<https://knightfoundry.com/>) He brought in some parts he had cast. One was a sand pounder, the other was a bearing housing with a center core.



Aaron's castings

Larry Zurbrick reported via email that his GEM1 was running well. Larry was unable to attend the May meeting, but we should see the engine run in June.

Jeremy Coombes sent Paul another batch of the single use end mills General Dynamics uses for machining stator laminations. Thanks very much Jeremy!

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

Mike Rehmus is parting out his machine shop. Contact Mike via Model Engine Builder for a list.

The big item Mike is selling is his Bridgeport mill. Here are details:

Bridgeport 1-1/2 HP variable-speed mill

- o 1975 Mill with a newer head
- o Accurite 2-axis DRO
- o Mitutoyo Z-axis DRO
- o Servo Y-Axis table drive
- o 6" vise ground within 0.0001" flat and parallel all surfaces.
- o 10" circular parallel for tramming head ground within 0.0001" flat and parallel
- o R-8 Collet set
- o Criterion 3" R-8 boring head
- o Albrecht drill chuck
- o Horizontal milling attachment
- o 3-HP 220 VAC VFD TECO Fluxmaster FM-100
- o 8" Rotary table
- o Indexing head
- o Mist coolant spray head
- o Boring bar cutters
- o Miscellaneous cutting heads
- o Miscellaneous milling cutters
- o Manual

Contact Mike Rehmus at (707) 694-7585

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 Wagnon at weswag@ix.netcom.cm