

The Crank Calls



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MEMBERSHIP \$25.00 US

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NEXT MEETING

**Saturday, August 19, 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

- Aug 19: BAEM meeting at GGLS
 - ~~Aug 25-27: Good Guys West Coast Nationals~~
 - Sept 9: BAEM meeting at GGLS
 - Sept 9-10: GGLS Fall Meet & Open House
 - Oct 13-17, 26-27: Maker Faire at Mare Island
- 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 outside at Golden Gate Live Steamers on July 15, 2023. There were 15 members in attendance.

President Paul Denham opened the meeting by welcoming attendees and guests.

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.



July 15 BAEM meeting

BITS AND PIECES

Ray Fontaine assembled a Chinese Kerzel with a Banggood donkey pump jack into an interesting show piece. He made a worm gear to assist in the 60:1 rpm reduction required to drive the pump, which was originally battery driven. A foot long rod extension was needed for his one-way starter clutch to access the flywheel pin. Ray plans to add a generator for the pump light.



Jack Pump with Hit and Miss Engine

UPCOMING SHOWS AND EVENTS

-Goodguys Show

The Goodguys West Coast Nationals custom car show is scheduled for Friday – Saturday – Sunday, August 25-27 at the Alameda County Fairgrounds in Pleasanton.

Paul Denham led a discussion about whether or not to participate in the Goodguys Show this year. It's a four-day commitment and under current rules combustion engines must be run outside. **General consensus was to pass on show participation this year.**

-BAEM Meeting/GGLS Fall Meet: Sept 9

Meeting date moved up a week to same day as GGLS Fall Meet. GGLS Open House Sept 10.

-Maker Faire

Steve Hazleton described the Maker Fair at Mare Island planned for Oct 13-15 & 26-27.

-EDGE&TA

Ray Fontaine is also a member of Early Days Gas Engine & Tractor Association Branch 13 and shared flyers on showing engines at the Amador County Fair July 27-30.

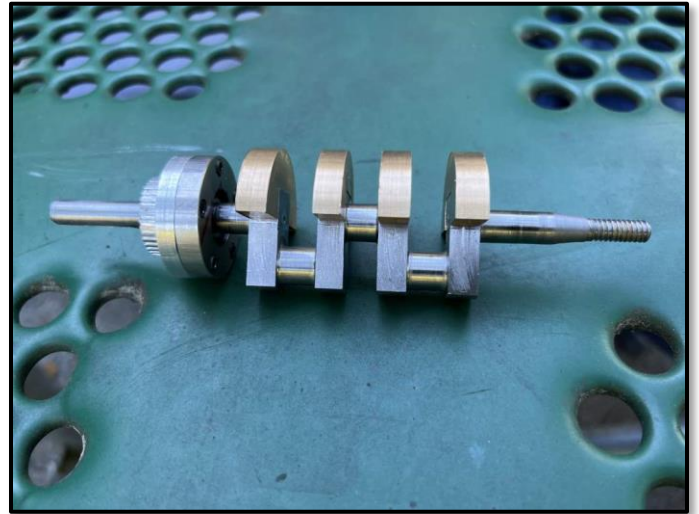
FIRST POPS

Lots of interesting work in progress, but no first pops.

Peter Lawrence is constructing two versions of a Hansel vertical single-cylinder engine: a gasoline version that ignites the fuel-air mix via electrical ignition, and a fuel-injected diesel version that ignites the fuel-air mix via the heat generated by high compression. Peter ran the ignition version of his Hansen vertical at the June meeting. He brought his diesel version this month with a number of “in progress” parts. This diesel engine features a 20:1 compression ratio and a flywheel with twice the mass of the ignition version. Peter noted that design and fabrication of the fuel pump and fuel injector is challenging for a high compression diesel. He has been watching You Tube watch-making videos, hoping to gain insights into how to machine tiny parts.



Peter's Hansen Diesel



George Spain's crank shaft

George Spain brought in the crank shaft for this twin cylinder horizontal project. He described several challenges encountered with the design including machining problems, a twisted shaft that displaced the timing gear, and the need for tapered crank keys.



Small parts for challenging machining



A Rider-Ericsson Hot Air Water Pumping Engine

Paul Denham acquired a casting kit for a Rider-Ericsson Hot Air Water Pumping Engine with a 3 inch bore (<https://myersengineworks.com/product/rider-ericsson-hot-air-water-pumping-engine-3-in-bore/>)

This engine is somewhat larger than Paul's other engine projects and it is affording him an opportunity to apply new machining skills. The flywheel barely fit his Monarch EE and most parts are too big for his vise and require table clamping.



Paul's Rider-Ericsson Hot Air Water Pumping Engine

Paul is making impressive progress and brought in components machined to date. His one-inch boring bar was not achieving the precision he wanted, so he borrowed a tool post grinder from Dwight to finish the cylinder sleeve. One of the connecting rod castings was missing, so he fabricated a new one from bar stock. He used a 1 ¼ inch chunk of 6061 aluminum scrounged from Lon Keeth, shaping it with a used ¼ inch end mill from Jeremy Coombes. The experience helped him relearn the need for rigid fixtures.

Lon Keeth showed a Jerry Howell side shaft flame licker kit he acquired but has not yet started.



Side Shaft Flame Licker parts

We look forward to hearing of Lon's progress towards a finished engine.



The goal: a nicely finished Side Shaft Flame Licker

Paul Denham also brought in his Black Widow V8 to make it available to Lon, who has undertaken a Black Widow from bar stock project.



Paul's Black Widow V8, to inspire Lon Keeth's Black Widow project.

Paul Denham circulated a “mystery” part. He believed it to be some sort of hot air engine, which was not obvious to anyone.



The mystery part. Can you identify it?

Mike Rehmus shared his phone app discovery called Envision (<https://support.letsenvision.com/hc/en-us/categories/440565070609-Envision-App->).

It is advertised as an optical character recognition, with related functions, to aid folks with vision impairment. It claims to find misplaced items,

which might be handy to find the calipers that were in my hand a moment ago.

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

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 Wagon at weswag@ix.netcom.com