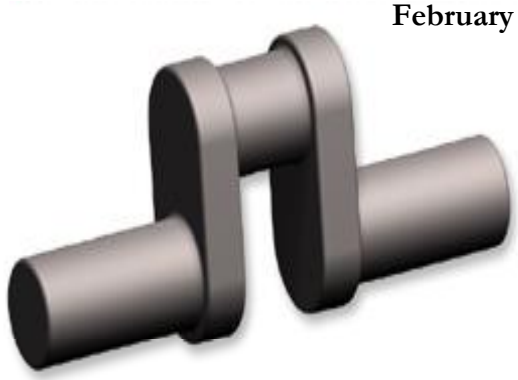
Bay Area Engine Modelers Club
www.baemclub.com

The Crank Calls

February 2023



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MEMBERSHIP $25.00 US
Contact Paul Denham at
pedenham@comcast.net

NEXT MEETING

Saturday, February 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

- Feb 18: BAEM meeting at GGLS
- Mar 18: BAEM meeting at GGLS
- Apr 15: BAEM meeting at GGLS
- Apr 22: STEAM Discovery Festival

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 January 21, 2023. Twenty-two members were present along with several 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 welcomed attendees and reported the club remains solvent. Paul shared his appreciation for club participation in the December meeting/pot-luck. He also mentioned that Club treasurer Dee Denham has also undertaken the newsletter reproduction chore for members who need hard copy vis s-mail. Dee has promised to deposit the 2023 memberships before 2024 is due.

The 2023 club 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".

BAEM's YouTube Channel: https://www.youtube.com/channel/UCZ7VbDw_y0GtNm1n6KWiQkg

CLUB BADGES

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

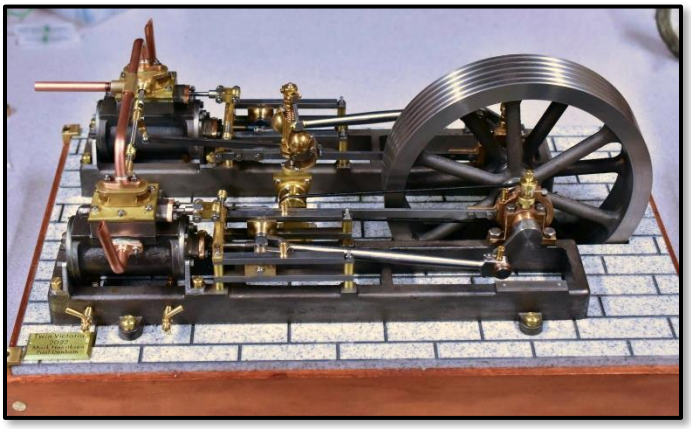
UPCOMING SHOWS AND EVENTS

April 22 is the STEAM Discovery Festival from 10am to 4pm at the Solano Community College, 4000 Suisun Valley Road, Fairfield. STEAM stands for Science, Technology, Education, Arts, Mathematics. It is a makers type event. Website is: http://steamdiscoveryfestival.com

Steve Hazelton (steve.hzltn@gmail.com) is coordinating our exhibit.

FIRST POPS

Paul Denham had the Stuart Twin Victoria steam engine running so smoothly it required only 4 psi, and at 5 psi the flyball governor would activate. Paul put a lot of work into this, and it showed. He machined everything except the cylinder bores. Rescued a badly machined packing gland. Recall Paul had a deal to machine and build the Victoria in exchange for several engine casting kits, a deal that worked out quite well for Paul's friend. Results are spectacular despite BA machine screw learning curve. Denham refinements included brass steam chest covers, a polyethylene belt to drive the governor, and a ceramic surface on the base. A fine example of superior machining work by a master craftsman.



Stuart Twin Victoria steam engine

Paul Denham describes the Twin Victoria

Engraved plaque

Paul frequently adds nicely engraved plaques to identify his work, like the one pictured above. Paul described his engraving technique. Paul uses his Bridgeport converted to CNC and recommended Scorchworks (https://www.scorchworks.com/index.html) for CAM software to generate G-Code. The G-code is loaded into the CNC software controlling the Bridgeport, into which is chucked a small mill bit for engraving the letters. The letters are filled with black paint. There are a number of software tools available on the Scorchworks site.

BITS AND PIECES

Dwight Giles designed a vertical version of his GEM1 that Mike Rehmus calls the GEMini. He built 2 prototypes and gave one to Paul, who added a carburetor, ignition, and base, and got the engine running. He had to set up a low-rate carburetor production line; one for his GEMini, one for Dwight, one to replace the one on his GEM1 prototype that he used on his Little Devil.

GEMini version 1

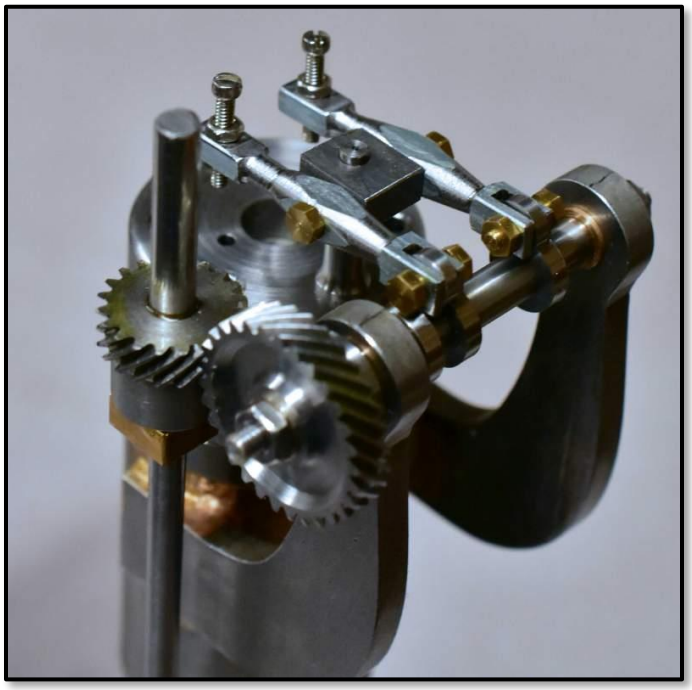
GEMini version 2

Mike Rehmus plans a GEMini build article in upcoming Model Engine Builder issues.

Peter Lawrence is reverse engineering his version of a single cylinder A-fame vertical diesel based on Hansen's YouTube posting (https://www.youtube.com/watch?v=oZlxQDWvmoY). Peter has two prototypes underway and discussed a number of design and fabrication challenges. He cut sheet metal parts for four engines and is assembling two. A-frames were assembled using silver solder and TIG welding. Peter prefers silver solder, and described his fixtures needed to solder the camshaft brackets to the water jackets.

Peter's A-frame vertical diesels

The engine uses a helical gear chain to drive the cam shaft. Peter shared his learning curve on how helical gears are specified and where to procure them in the small sizes he needs. Discussion also included his derivation of how to determine axial load direction that was not forthcoming from gear manufacturers. Peter expects the diesel fuel injection will be particularly challenging and intends to set up the first prototype with spark ignition.



Close-up showing helical valve gear mechanism.

Peter also brought in parts for his 4-cylinder Duesenberg including a distributor, oil pump, and water pump.

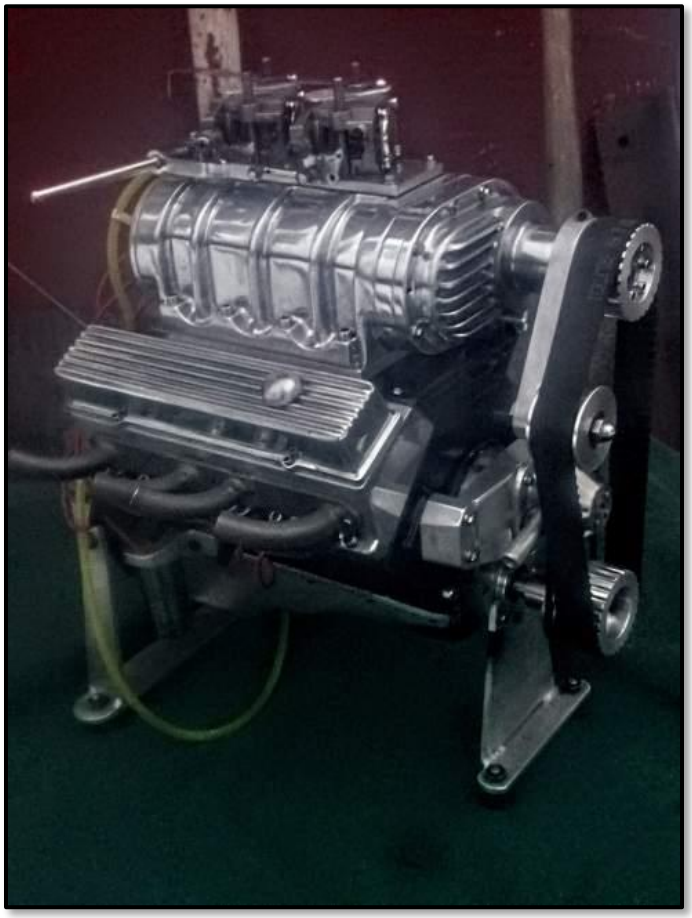
Charlie's model steam turbine generator

Charlie Reiter showed a model steam turbine generator set from Cringle Model Engineering (https://www.cringlemodelengineering.co.uk). He built the turbine set from castings. Cringle has an interesting variety of finished models, unmachined casting kits, and individual castings.

Charlie Reiter showing his model steam turbine generator set.

RAMBLINGS

Received an email from Jimmy Moyer, a BAEM member who lives in Washington state. He provided an image of a Black Widow V8 he has been working on.



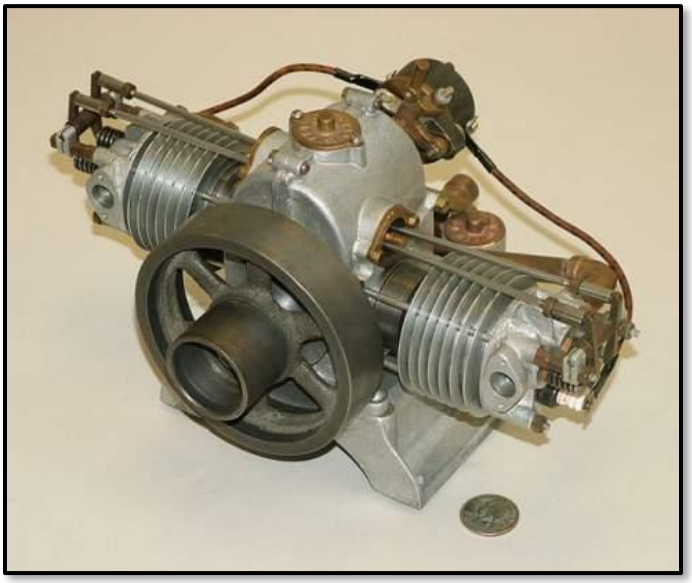
Moyer's Black Widow

"I have changed a number of components, not because they were bad, but sometimes we have favorite ways of doing things. The oil pump is inside the engine, and there are no ball bearings on the crank, only babbitted shell type bearings. The bore is 1 1/16, and I wish I had gone bigger. The starter is a gear reduction engaging type. There are other external changes easy to spot."

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

WALL Wizard casting kit for sale



A fully assembled Wall Wizard

BAEM member Pat O'Connor has a very rare Wall Wizard engine casting kit he wants to sell. Comes with original set of Blueprints plus other items. It is probably over 70 years old! The flywheel has been about 90% machined, and the Block has had some nice cuts on it. (Here's some background information about model engine designer Elmer Wall: http://modelenginenews.org/gallery/p18.html)

Pat would prefer to sell it to a BAEM member, and is willing to sell it for $250.00, which is a bargain price for something this rare. Dick Pretel is handling this sale, so contact him if you're interested.

Dick: 408 732 6507, email: rpm11k@att.net

Dwight Giles mentioned he had a Quorn tool bit grinder he was considering selling.

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