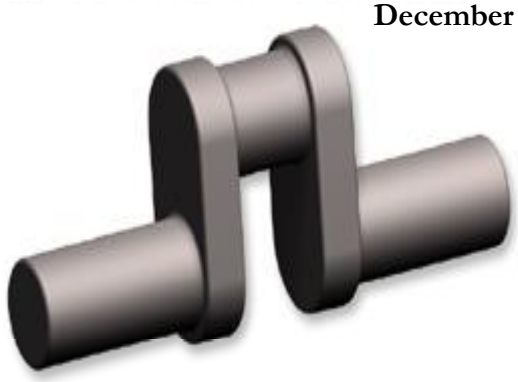
Bay Area Engine Modelers Club
www.baemclub.com

The Crank Calls

December 2022



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NEXT MEETING

Saturday, December 10, 2022, at the Golden Gate Live Steamers clubhouse site in Tilden Park, Orinda, CA

Gate opens at 10:00 am

Meeting starts at 11:00 am

Potluck brunch follows meeting!

Upcoming Events

- Dec 10: BAEM meeting at GGLS plus potluck
- Jan 21: BAEM meeting at GGLS
- Feb 18: 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

The monthly Bay Area Engine Modelers meeting was held at the Golden Gate Live Steamers clubhouse on Saturday, November 17. Twenty-two members were present as well as guest Mike McGue.

NEW MEMBERS/VISITORS

Mike McGue has wisely chosen to join BAEM. Please welcome him and confirm his good judgement.

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

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

TREASURER'S REPORT

President Paul Denham summarized club finances and mentioned that annual dues of $25 for 2023 are due. Give your check to Paul Denham at the next club meeting, or mail to Deirdre Denham at 1937 Merchant St, Crockett, CA 94525. Make checks payable to "BAEM".

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

No shows are currently pending.

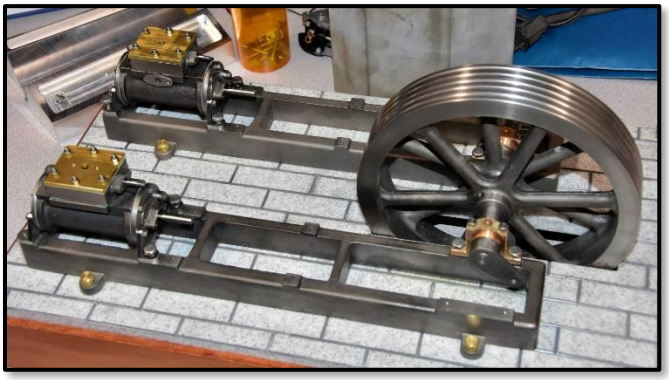
Holiday Potluck: BAEM members, and their guests, are reminded that our annual holiday potluck follows immediately after our next meeting, which is this coming Saturday, December 10. Guests are welcome. Bring a dish to share and plan on enjoying a pleasant meal with your fellow BAEM'ers.

FIRST POPS

No reported first pops.

BITS AND PIECES

Paul Denham brought in a Stuart Twin Victoria steam engine. Paul has an arrangement with Mark Henriksen: in exchange for some steam engine casting kits, Paul will do the finish machining and get the Victoria engine mounted and running. Paul built a tiled project board, upon which are mounted the twin bases and flywheel. He also had some internal debate about whether to use the British BA threaded screws that came with the kit.



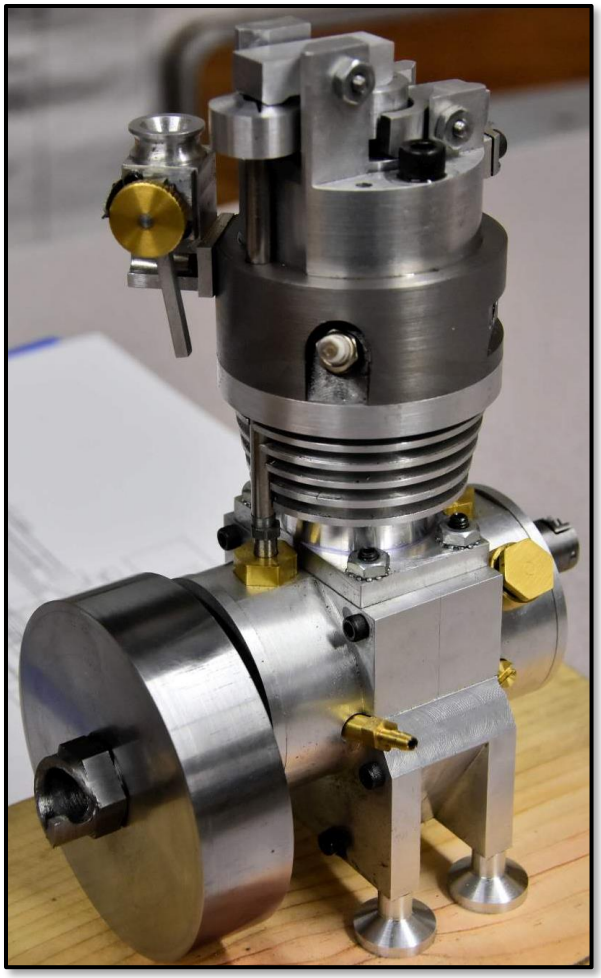
Stuart Twin Victoria steam engine

Stuart offers a flyball governor for the Victoria and Mark bought one for Paul to install (with some Paul designed improvements).

Paul also gave a brief talk regarding subtleties of the operation of the Sage-Geddy ignition driver circuit. The circuit includes the use of an IGBT transistor designed for ignition applications and a "time out" circuit that stops current flow if the coil is powered (LED is "on"). This feature prevents battery drain if the magnet is activating the Hall Effect Sensor or reed switch after the time out. See Model Engine Builder 34 for a SGI build article with lots of detail. Paul's version uses his own PCB with some surface mount components and automotive "coil over plug" high tension coils.

Larry's GEM-1

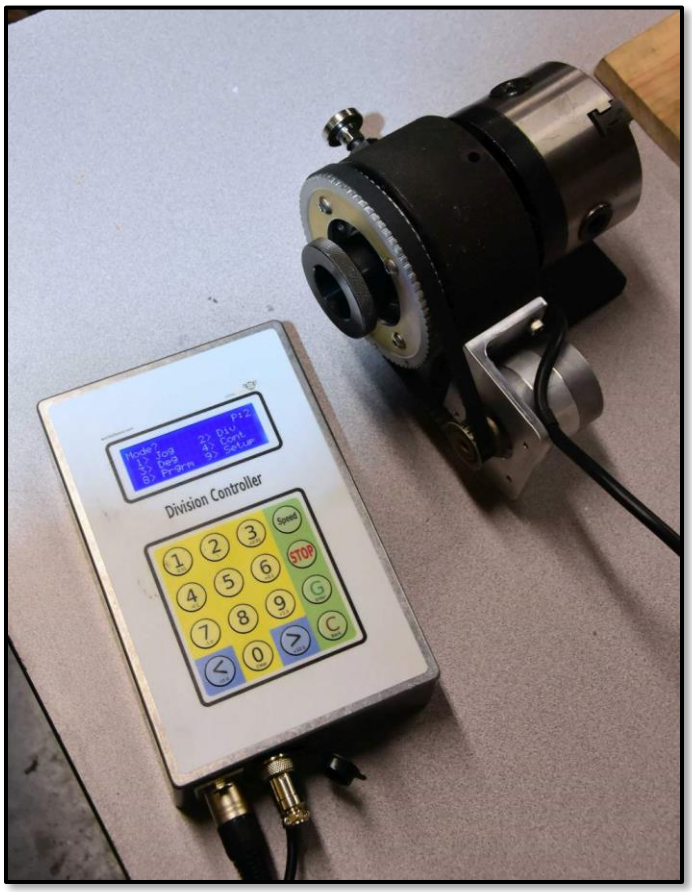
Larry Zurbrick has been building a throttle governed GEM-1 using the material kit from Dwight Giles, and some other Dwight-provided parts, like built-up flywheels. Larry includes some custom features like a metric bearing for the crankshaft. The engine is mounted on a nice box and should be ready to run when ignition installation is completed.



Joel's coaxial valve engine

Joel Cohen continues to refine the design of his single cylinder vertical engine with a unique coaxial valve arrangement. His updated design improved the engine esthetics with smaller proportioned parts. He realized that intake valves larger than exhaust valves would be more efficient, so he added features to switch coaxial assignment between inlet and exhaust.

Charlie Reiter brought in a CNC rotary indexer with a "World of Ward" controller (www.worldofward.com). Charlie purchased an assembled controller and paired it with a stepper motor and a rotary drive. He scrounged the drive from an acquaintance who acquired the drive but didn't know what it was for. Ward's design uses a Pic microchip with firmware that is available for download on his site along with other components, PCBs and documentation.



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Charlie demonstrates use of his controller

Of related interest, Paul Denham happened upon an early software version and cloned his own version of the driver PCB. Mike Byrne used Paul's PCB and Ward's software to assemble an indexer with a hybrid stepper, which he demonstrated at a recent club meeting.

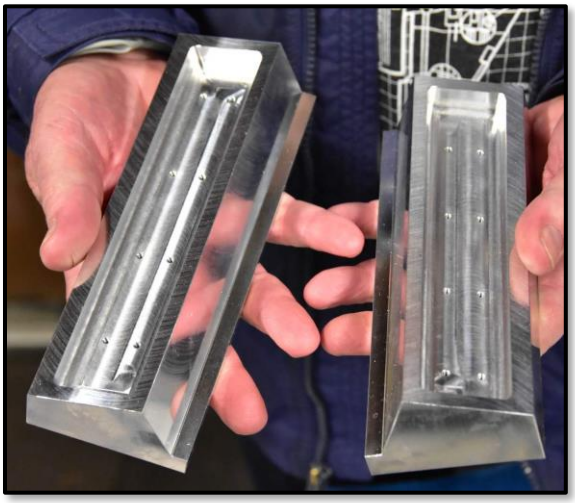
Peter Lawrence has been making progress on his quarter scale Duesenberg straight four. He had the head, block, and crank assembled, and the timing pullies and idlers were installed for a fit check. Machining so far is very impressive. This engine has 4 valves per cylinder and Peter showed his very creative fixture for leak testing the valve seat with the cage after lapping. He has switched from tooth paste to Brasso for lapping compound. He made 18 valve/cage sets and 16 that tested "good". He has also started a build thread on the Home Model Engine Machinist forum.

Peter's valve-seal tester

Peter showed the device he had fabricated for testing the sealing of his valves. His tester consisted of a Schrader valve, a pressure gauge, and a two-piece block with a cavity to hold the valve/cage assembly. His design permitted easy, fast testing, as one merely inserted the valve/cage by hand, twisted the locking cover and applied pressure to test.

Peter used 303 stainless steel to make valves. Dwight uses A2 drill rod. Peter said he has seen rust on valves of model airplane engines and prefers the more corrosion-resistant stainless alloy.

Lon Keeth got one of the Black Widow V-8 blocks and plans from Dwight and has started work. He had the cylinder heads machined, has machined some of the valves and purchased two of the Wolbro carburetors that Paul Denham had used in his V-8 rework. We look forward to hearing of Lon's progress on this challenging build.



Lon's Black Widow cylinder heads

Lon (on R) confers with Dwight Giles (on L)

RAMBLINGS

Bob Kradjian happily reports that our club received some positive press in the January 2023 issue of GOOD GUYS magazine. Seems they were pleased by our return as an exhibitor at last summer's Good Guys West Coast Nationals show at the Pleasanton fairgrounds.

Interesting note: Dwight Giles reached an agreement with Martin Models who are marketing Black Widow V8 casting kits made from Dwight's patterns. https://www.martinmodel.com/collections/model-engine-casting-sets/products/v8-black-widow-engine

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!

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