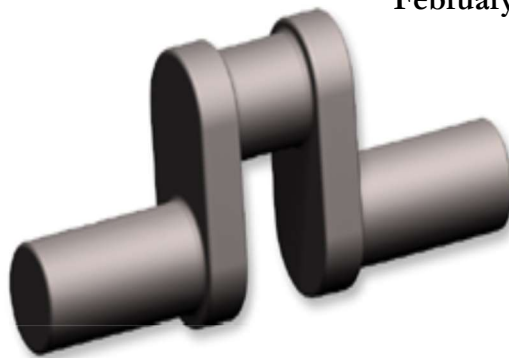


The Crank Calls



President	Paul Denham	pedenham@comcast.net
Secretary	Your name here!	Please consider volunteering
Treasurer	Deirdre Denham	pedenham@comcast.net
Events Coordinator	Steve Hazelton	steve.hzlt@gmail.com
Webmaster	Mike Byrne	mgbyrne3@comcast.net
Editor/Printer	Wes Wagon	weswag@ix.netcom.com

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

NEXT MEETING
Saturday, February 19, 2022, 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
Meeting will be inside, without masks.
Hot wood stove if needed!

Upcoming Events

- Feb 19: BAEM meeting at GGLS
- Mar 19: BAEM meeting at GGLS
- Apr 16: 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

Club met outside at Golden Gate Live Steamers in Tilden Park on January 15, 2022. Nineteen members and one guest were in attendance.



NEW MEMBERS/VISITORS

We were pleased to welcome guest Jeremy Coombes. He is a Golden Gate Live Steamers member, with lifelong involvement in hobby machining. He shared some of his experiences, and showed a steel fireplace poker he made in school shop as an eleven-year-old.

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

TREASURER'S REPORT

The 2022 dues of \$25 are now 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".

Paul reported the club is solvent.

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/EVENTS:

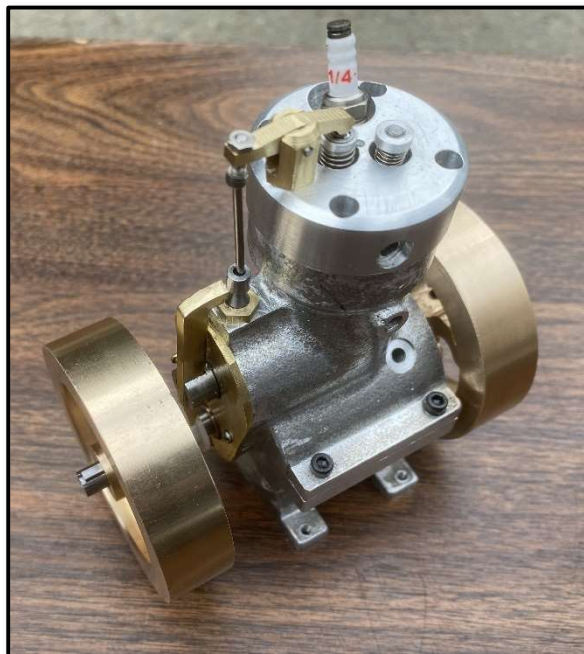
None in the near future.

FIRST POPS

None reported.

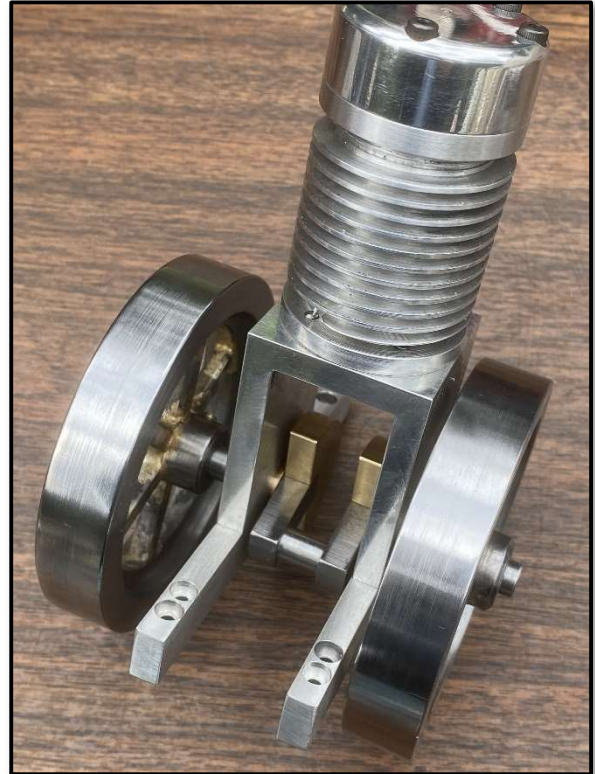
BITS AND PIECES

Paul Denham is making good progress on his Bob Shores "Little Devil" vertical hit-and-miss engine. Paul acquired the castings from Dwight Giles. Machining was largely done, with ignition and governor yet to be installed.



Paul's Little Devil showed progress

Dwight Giles and Mike Rehmus are collaborating on a vertical hit and miss they are calling the *GEMini*. Two prototype engines are underway with cylinders, heads, flywheels, and cranks assembled on a base. Here's a picture of one of them:



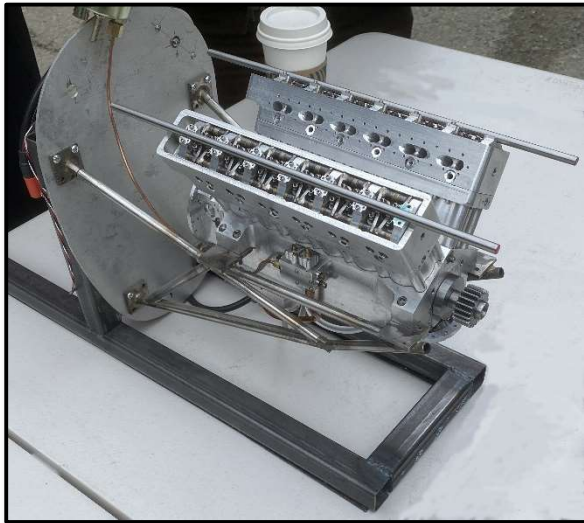
One of the GEMini's

Dwight made "built up" flywheels with components assembled on a jig, then silver brazed together. Pins are used in the jig to hold the components and minimize undesired heat transfer during brazing.

Dwight discussed the different grades of silver solder. He recommends using the highest grade, grade 5, which sticks best to steel.

Mike documented Dwight's flywheel design, including the brazing jig, in *Model Engine Builder* edition 31. Dwight also recommended two-part epoxy paint available from Aircraft Spruce for model engines, as it resists the tendency of engine fuel to dissolve ordinary paints.

Peter Lawrence brought in his 12-cylinder, 48-valve Merlin aircraft engine project, which he hopes is in the final assembly phase. Peter shared some of his assembly frustrations involving valve/rocker conflicts, cam base circle grinding issues, and bevel gears slipping on tapered shafts when trying to turn the engine over.



Peter's 12-cylinder Merlin

Peter then showed a crankshaft he made for his Dehaviland Cirrus engine, another aircraft engine project that Peter has underway. Apparently, the Cirrus was not a sufficient distraction and he also started connecting rods and linkages for a Muncaster No. 9 twin horizontal steam engine that uses Joy valve linkages. The rod ends were silver brazed and looked very impressive. Peter recommended Harris Welding Supplies as a source of Harris Safety-Silv 56 and 45. 56 is higher strength, and 45 has better gap-filling characteristics.



A Cirrus crankshaft and Muncaster parts

Peter concluded by sharing a safety concern. He related how he had suffered freezing burns while brazing the rods ends with a nearly depleted MAP gas bottle clutched between his knees.

Charlie Reiter showed an air powered turbine (of uncertain origin or application) that he mounted on a base with a transmission connected to a DC motor. He also had a some nicely painted flywheels built up from three pieces of plate aluminum.



Air-powered turbine, restored by Charlie Reiter.

Charlie also showed another example of his machining work, displaying a very nice looking model generator built from a casting kit obtained from a UK company, Cringle Model Engineering.

<https://www.cringlemodelengineering.co.uk/product-page/model-generator-castings-kit>



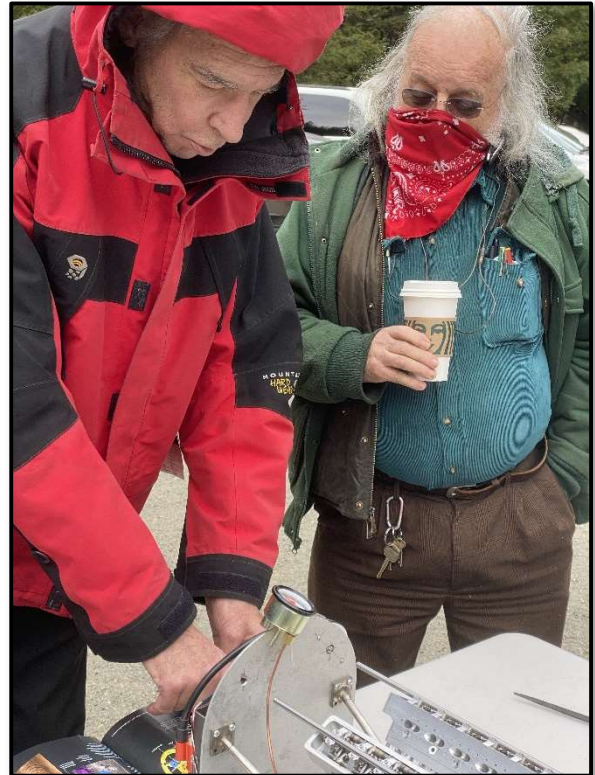
Model generator by Charlie Reitman

Paul Denham has a Step Models *Frisco Standard* hit-and-miss casting kit that arrived minus a bearing block. Mike Rehms drew up solid models of the part, 3-printed them and gave them to Paul for casting. Dwight and Paul shared their casting adventures using zinc aluminum alloy in Petrobond casting sand. The meeting note taker suggests that if man-hours expended were invoiced at a reasonable machinist shop rate, the cost of the bearing block would exceed the cost of the castings (not even counting material costs).



Frisco Standard bearings from Dwight Giles foundry.

Jerry Franklin showed his shop made multipurpose knife/tool with can opener, saw, and edges for slicing and copping. His sister fitted the wooden handle and made a leather scabbard.



Peter Lawrence adjusts his Merlin while a masked Anthony Rhodes looks on approvingly.

RAMBLINGS

Anyone interested in participating in a weekly Zoom meeting to discuss learning to use Alibre Atom 3D? E-me if you'd like to explore the idea: weswag@ix.netcom.com

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.

WANTED

BAEM member Larry Bunch wants to purchase a Logan 11 x 36 Lathe and asks that

anyone who knows of one for sale please contact him.

Larry Bunch 209-404-6700
wendyroky2@gmail.com

FOR SALE

Mike Rehmus has a large, heavy welding table he would like place in a new home. Mike estimates the table is 350 pounds including the quarter inch steel top. If you're interested in it, contact Mike at mrehmus@byvideo.com.

--+--

Mike also has a "nearly new" Qidi S-box LCD resin printer for \$400. Apparently, he doesn't need two. He also has some extra Frisco Standard bearing block mold plugs for less than production costs.

--+--

Dick Pretel has a number of model engine connecting rods available for sale. Large rods are 2-1/2 inches center to center; small rods are 1-15/16 inches center to center. Big end bores are 3/8 inches on both. Wrist pins are included (O1 tool steel, hardened to Rockwell C60, 0.1875" ground to +.0002, -.0000, centers on both ends.) Price is \$12 per rod. Contact Dick via email (rpm11K@att.net) with questions or orders. Drawings at <http://www.damgood.com/product-model.html>



Pretel's rod

--+--

Jerry Franklin has a Taiwan Bridgeport clone for sale. It's a 1980 EXACTO model 942b milling machine with 9x42" table, 220/440 3 phase power. Better than average condition. Located in Milpitas. \$2200. Leave contact info at 408 263 8577 (voicemail) and Jerry will get in touch with you.

--+--

BAEM member George Spain is offering for sale three different professional-level cylinder boring devices. All are used, but in good condition.

VAN NORMAN 777-6 Boring Bar.

Boring bar with stand and tool kit.
Price: \$ 1500

VAN NORMAN 944 Boring Bar.

Boring bar with stand and tools.
Seen elsewhere for \$ 2,200 – 4,800.
Price: \$ 1500

STRONG Boring Bar.

Boring bar, table model, with tools.
Bores 40mm to 70mm.
Seen elsewhere for \$ 1,600 – 2,750.
Price: \$ 1500

For further information, contact George Spain at
Phone: 707-342-2931
Email: geobev11@att.net

--+--

Dwight Giles has some stuff he is offering:
-1.5 hp electric motor. 1750 rpm. 110/220v AC single phase. Heavy! Price: Free!
-Engine Mount Box. Beautiful wooden box for mounting your larger engine. Perfect for a Black Widow V8. 3 available. Price is \$200 donation to club.
Contact Dwight at jjg313@aol.com
or phone: 707-648-1481

--+--

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



LAST WORD

Submitted by Mike Rehmus. . .

