

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.hzltn@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, August 17, 2024, 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 17: BAEM meeting at GGLS
- Sept 14: BAEM meeting at GGLS (Note: **date of meeting moved up a week.**)
- Sept 14 & 15: GGLS Fall Meet/Open House
- Oct 12: BAEM meeting at GGLS (Note: **date of meeting moved up a week.**)
- Oct 18-20: 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.

There was some discussion about upcoming monthly meeting dates. Note the September meeting date was moved up a week to coincide with the GGLS Fall Meet. The October date was moved up a week to avoid conflict with the Maker Faire.

MEETING NOTES

The Bay Area Engine Modelers met at the Golden Gate Live Steamers clubhouse on July 20, 2024. Thirteen members attended. Paul Denham welcomed members and described BEAM participation in the GGLS open house on June 16. The event was well attended, and participants expressed interest in model engine construction and operation. Putting out a “tip jar” was suggested and \$129 was collected and deposited in the club account.

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

Paul Denham reported that the club's finances are in good shape.

2024 BAEM dues of \$25 are payable. 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 (editor@modelenginebuilder.com) who has offered to produce them.

SHOWS AND EVENTS

Engine shows and similar events provide an opportunity for BAEM members to display their craftsmanship to an appreciative audience. They also serve to publicize our club's existence to potential future members, helping build our membership.

BAEM encourages all its members to participate in shows. Your help is needed to populate our display tables. You don't need an impressive collection of model engines to display. In fact, you can help without anything at all to display, as we always need people to provide coverage. It's a lot of fun interacting with members of the public, explaining what the engine model building process is all about.

-GGLS Fall Meet and Open House

Looking ahead, GGLS will be holding their "Fall Meet" on September 14 & 15. It's an event very similar to the recent "Spring Meet," except, well, it's in the Fall. BAEM members are encouraged to attend and display their engines to an appreciative audience. Our Sept meeting has been moved to the 14th for this event.

-Maker Faire Bay Area

The Maker Faire Bay Area will be held at Mare Island Naval Shipyard on October 18-20, 2024. We will be showing our engines, and all BAEM members should consider attending.

Here's their website:

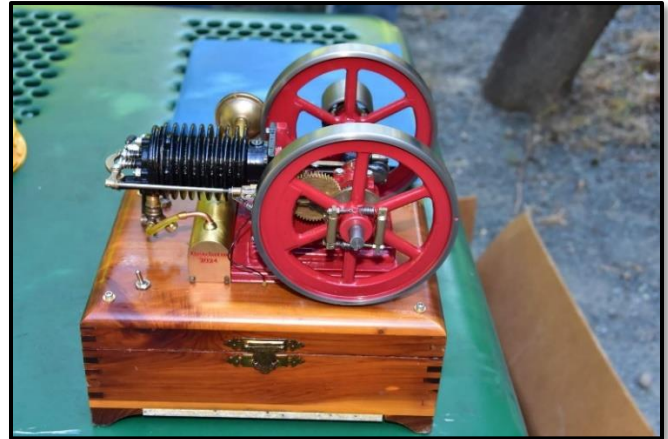
<https://makerfaire.com/bay-area/>

Steve Hazelton will be coordinating.

FIRST POPS

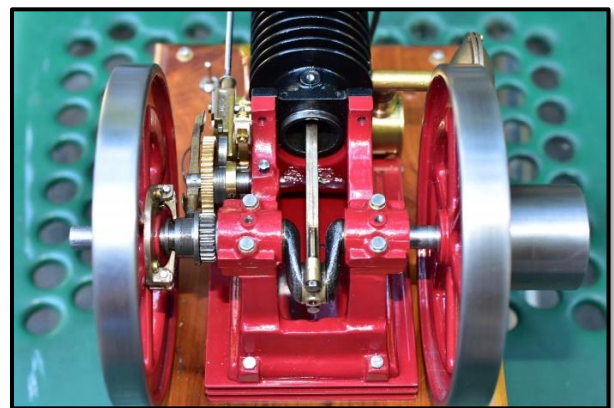
Paul Denham acquired a Martin Model casting kit of a Gade horizontal hit and miss engine.

(<https://www.martinmodel.com/collections/model-engine-casting-sets/products/gade-1-hp-engine-casting-set>) This is a 1/4 scale model of a single-cylinder air-cooled stationary engine intended for farm use.

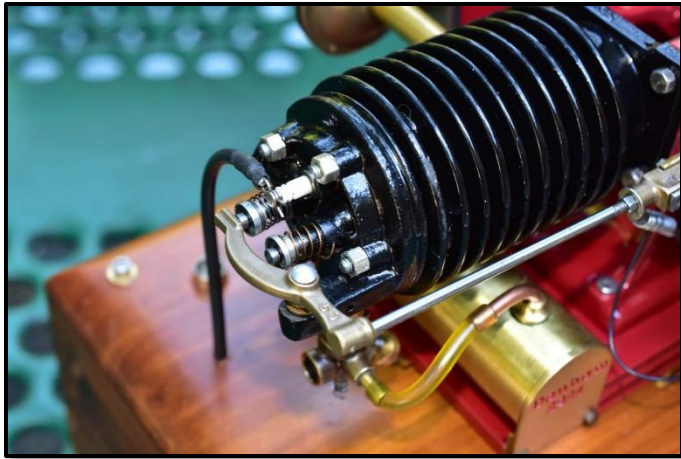


Paul's Gade Horizontal

As can be seen in the accompanying photos, this model is typical of Paul's fine work: carefully machined mechanical components and gleaming polished brass contrasting with nicely painted castings. The newly completed engine was mounted on a well-crafted base repurposed from a wooden cigar box of cedar.

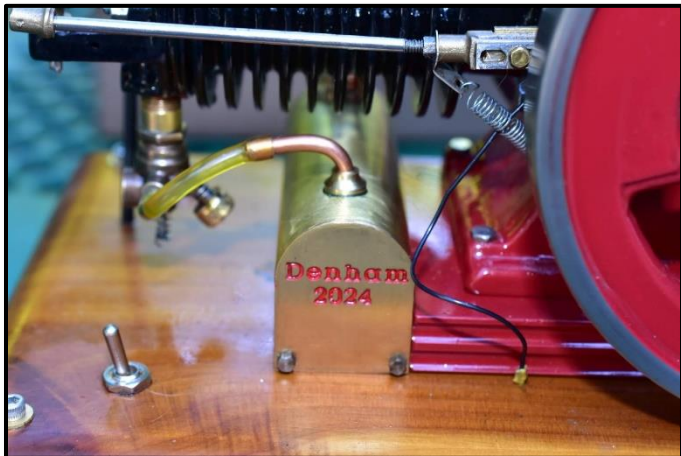


Bottom-end view of Paul's Gade



Detail of top end of Paul's Gade

Paul noted that the castings were all high quality, but he admitted he had to build a new piston with Dwight-made rings to solve some compression problems. He used his expanding tap collection for the 5/16 – 40 exhaust tube.



*Paul signs his work with paint-filled lettering.
A nice touch!*

It ran well, of course. Another fine example of Paul Denham's master craftsmanship.

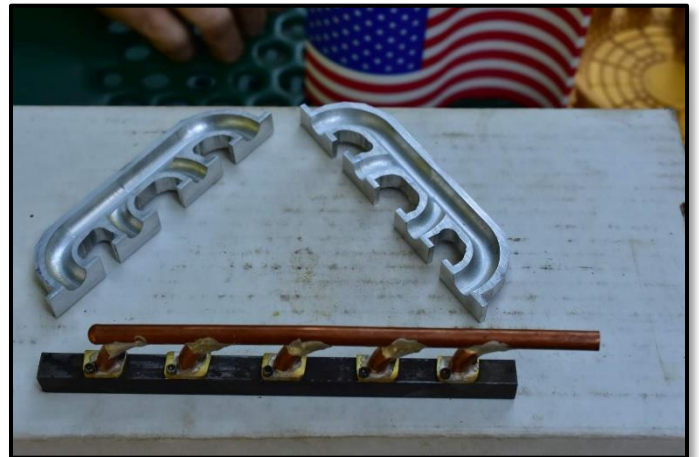
BITS AND PIECES

Mike Rehmus brought in some fine examples of high-quality, multi-colored 3-D printing produced by his Bamboo brand printer using PLA. One item was a 3-D printed red-white-blue American flag. The other was a dice tumbler for use while playing a board game, in the

form of a toy castle. Clearly, Mike is the guy you want to talk with if you want to get into 3-D printing.

Peter Lawrence showed progress on several projects. He shared a jig for silver soldering a brass coolant return tube for his Duesenberg in-line four. He had also started fabricating the intake manifold from 6061 aluminum, a machinable alloy that is highly weldable using TIG.

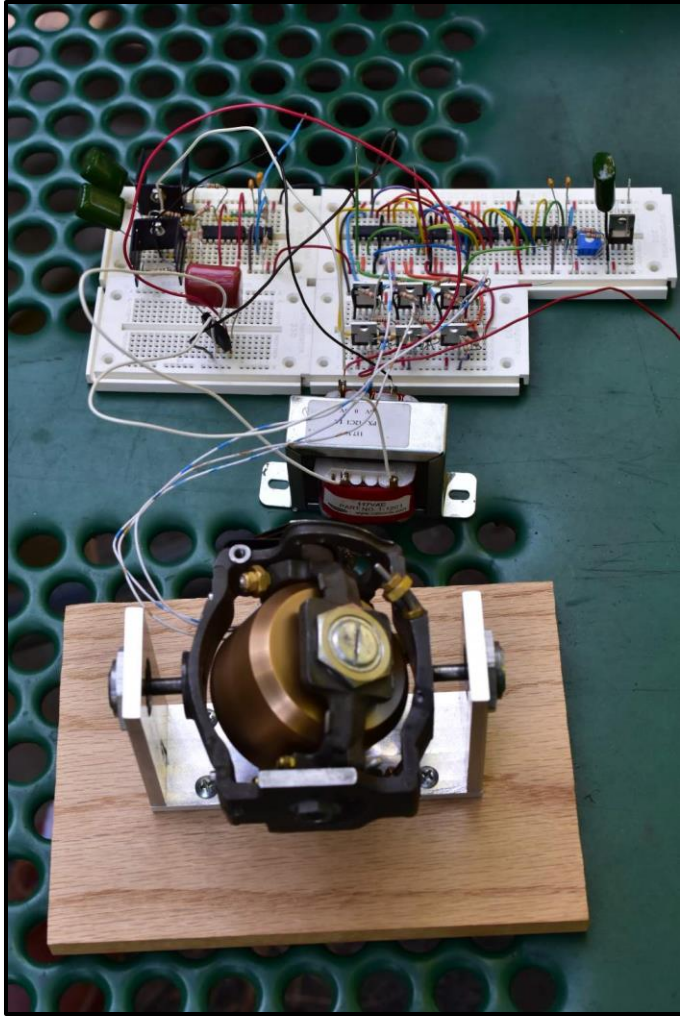
(https://en.wikipedia.org/wiki/6061_aluminium_alloy) Peter's plan is to machine the manifold in two matching sides, then TIG weld the sides together into a single unit that is shaped by filing so that it appears to have been either cast or fabricated from thick-walled aluminum tubing.



*The two halves of the aluminum intake manifold above,
the brass coolant return tube below.*

The full-size engine has highly polished aluminum features, and Peter is intending to polish the manifold. Unfortunately, the heat-affected zone created by the welding process alters the characteristics of the 6061 aluminum alloy, and it won't polish in those areas. Peter's desired solution is to find a source of Scandium aluminum welding rods. TIG welds created using Scandium aluminum rods can be polished.

<https://www.scandium.org/product/sc1019-scandium-aluminum-alloys/>



*Gyroscope and breadboard-fabricated
3-phase power supply*

Peter has also undertaken an effort to rework an aircraft attitude indicator, so that he can show it in conjunction with his V12 Merlin. He first constructed an appropriate gimbal mounting for the gyroscope. Then he fabricated a 3-phase power supply that the World War II gyroscope requires. Peter again thanked Larry Zurbrick for his help with the analog switching required for 3-phase power production. Peter connected the battery, and the gyroscope spun up to more than 8000 rpm. There is still some work to be done to increase power voltage to achieve the target of 12,000 rpm. An impressive accomplishment. We hope the increase power voltage installation process does not qualify the project for a "first pop".

GGLS member Bruce Westphal donated several model engines to the train club and Paul Denham was asked to help get the engines running. One was a large hit-and-miss horizontal air-cooled engine with roughly a 1.5 inch bore and 9-inch diameter flywheels. Engine had an engraved plaque on the side suggesting the builder:

R Fredrick 2004
Quakertown, PA 18951

After the formal meeting, Paul assembled the buzz box ignition and attempted to start the engine. Progress was made and pops were occurring, but the engine wasn't quite running at the end of the effort. At our next meeting, you can expect Paul's report regarding the status of this engine.

There were two boxes of "goodies" offered. Carl Wilson sent in some model machining books and Bob Kradjian was the source of what appeared to be a box of model airplane glow plug engine parts and prop spinners. Thanks guys!

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

Got something you'd like to sell? Your ad is free and will be seen by likely customers.

NEWSLETTER CONTRIBUTION

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