

# The Crank Calls



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**MEMBERSHIP \$25.00 US**  
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**NEXT MEETING**  
**Saturday, February 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**  
• Feb 17: BAEM meeting at GGLS  
• Mar 16: BAEM meeting at GGLS  
• Apr 20: 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 Bay Area Engine Modelers met at the Golden Gate Live Steamers clubhouse on January 20, 2024. There were 13 members/guests in attendance. BAEM President Paul Denham welcomed everyone.

**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, greatly helped by the generous donation of Dwight Giles, who recently sold some stock and donated the proceeds to the club. The club thanks Dwight for his kind donation.  
Paul also expressed the club's deep appreciation for the efforts of his wife, Dierdre Denham, who serves as the club's treasurer, keeping track of club finances and numerous administrative chores. Thanks, Dierdre!

As a reminder, 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 (mrehmus@byvideo.com) who has offered to produce them.

## SHOWS AND EVENTS

No upcoming shows/events during the next couple of months.

## -EDGE&TA

Ray Fontaine (email: [Raftus2@outlook.com](mailto:Raftus2@outlook.com) Phone: (925) 784-5411) coordinates our club's participation in EDGE&TA events. The Branch 13 website is here: <https://branch13edgeta.com/>. Check it out for their full calendar.

Branch 13 held its Antique Equipment Show at the Mahon Ranch in Elk Grove, on Oct. 6-7. Ray represented BAEM, attending the show and displaying and providing information regarding BAEM to those who showed interest.

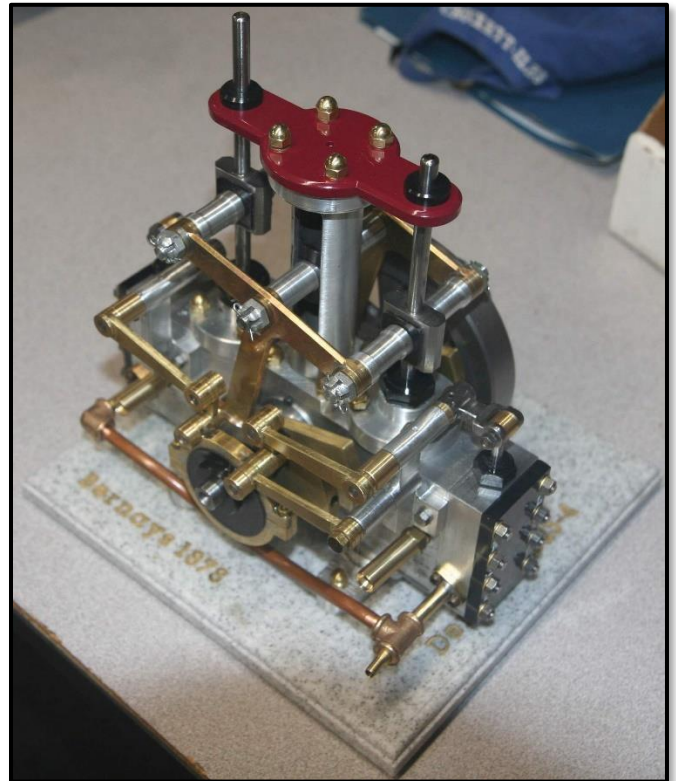
Ray received a very nice letter, thanking BAEM for its participation in the show. It was clear they valued our connection, appreciated our involvement, and encouraged our participation in future events.



*Ray reads EDGE&TA letter of thanks*

## FIRST POPS

Paul ran his recently completed Bernays steam engine. This is a model of an 1878 twin vertical cylinder steam engine with interesting valve linkages. Paul had engine plans and built the model from bar stock. He shared a number of changes he made for operability and machinability. The model is very attractive and ran well on less than 5 psi air pressure.

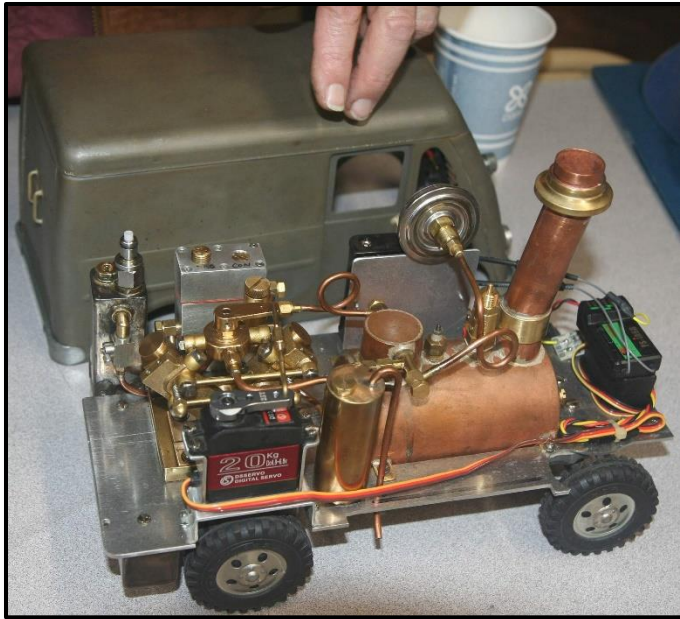


*Paul's Bernays steam engine*

Link to video of Paul's engine running:  
<https://youtu.be/RA-WNv9wgEc>.

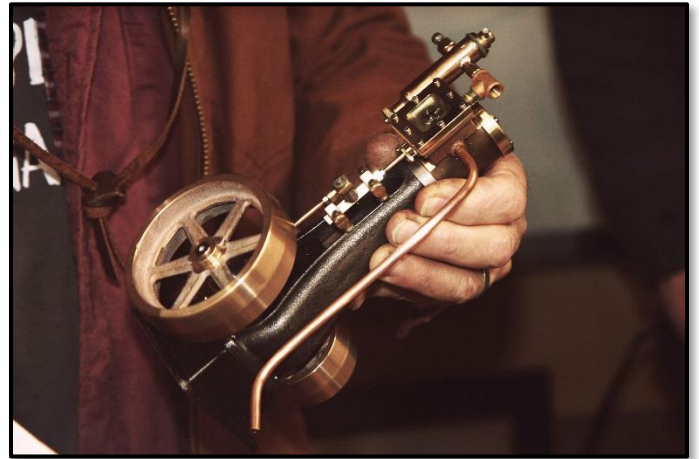
## BITS AND PIECES

Charlie Reiter brought in a very interesting project. He started with a metal model ambulance frame and four wheels. He added a twin cylinder Chinese steam engine, a working boiler, transmission, and radio-controlled servos for throttle and steering. Apparently, brakes were not required.

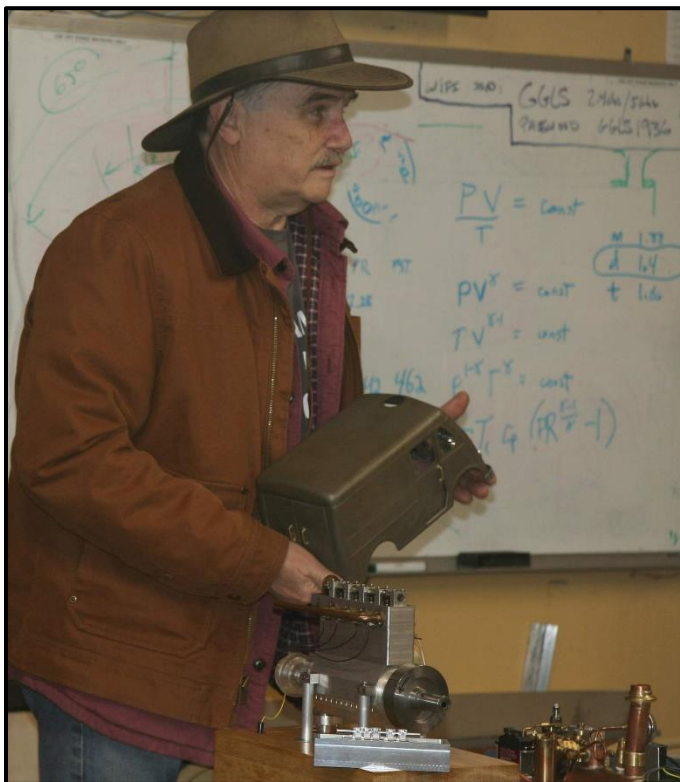


*Charlie's steam-powered, radio-controlled model ambulance.*

constructed. (<https://pmodelengines.com/steam-engine-5/>) It is a 1/8th scale model of a 6 hp Orr & Sembower "F" engine.



*Orr & Sembower "F" engine*



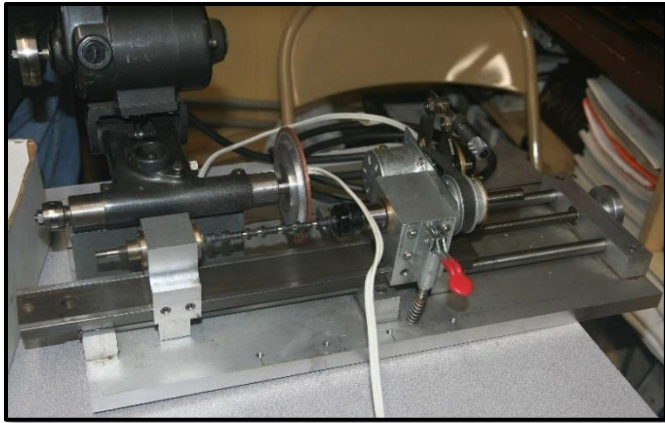
*Charlie's model ambulance funny car*

Peter Lawrance reported on the cam grinding progress for the inline four-cylinder engine he is using for design proof of concept. Readers will recall that he is retrofitting the engine with a new head, to include quad valves and liquid cooling. Peter brought in his shop-made cam grinder, and discussed challenges encountered in the design and fabrication of a master cam lobe, used to grind the very small lobes on the camshaft.



*Peter's inline four testing unit*

Charlie also showed an interesting PM Research #5 small vertical steam engine that he

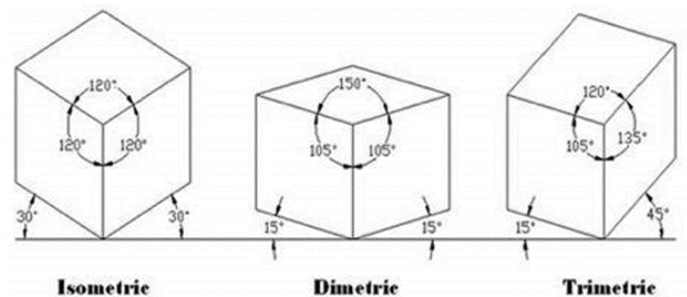


Peter's cam-grinding device

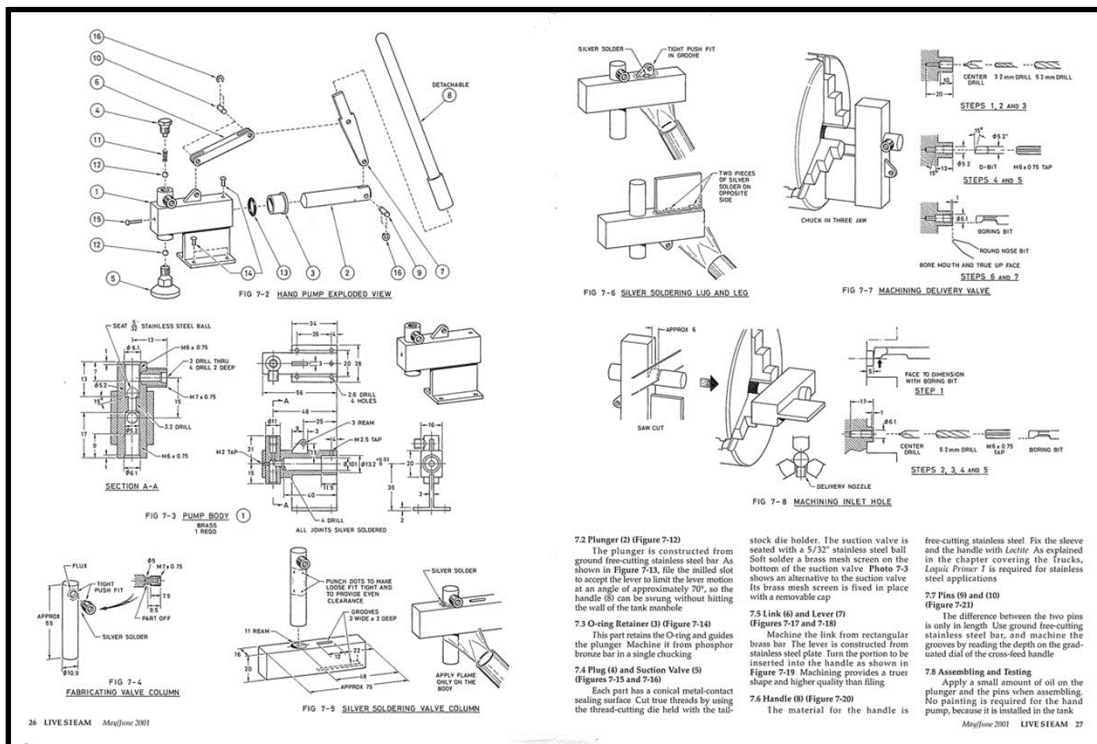
BAEM members will be relieved to learn that Peter has concluded that Don Bell's geometry for a 3-arc master cam does in fact work (with large enough grinding wheel diameter) but requires some fine tuning to smooth the surface of the master cam, eliminating minor facets and divots. This effort is essential, because minor errors in the master cam don't get reduced with the additive master cam technique and will be directly transferred to the lobes of the camshaft.

Peter is also considering writing a Merlin V12 build article, requiring production of quality drawings. Peter feels that trimetric projections are aesthetically better than isometric. While CAD programs like Solidworks easily support isometric, dimetric, and trimetric views (see examples below), Peter would like to be able to manually construct his drawings, in order to provide a superior image. Peter believes Kozo Hiroka produced very attractive project drawings that are hand-drawn and exceptionally clear. Peter is trying to emulate Hiroka's manual style.

### Axonometric Projections



Here's a link to an article about Hiroka: (<https://craftsmanshipmuseum.com/artisan/kozo-hiroaka/>)



A typical set of instructions with dimetric drawings from one of Kozo's books.

## RAMBLINGS

Neil Bottle ([neil\\_1821@yahoo.co.uk](mailto:neil_1821@yahoo.co.uk)) is an experienced model engine builder who resides in Leicestershire, UK. He's gotten in touch with our club in hopes of connecting with persons who are experienced building the Black Widow V8.

As our readers probably know, the Black Widow was designed by BAEM members Dwight Giles and Ken Hurst, and casting patterns were recently provided by Dwight to Martin Models, who is now offering casting kits for sale.

(<https://www.martinmodel.com/collections/model-engine-casting-sets/products/v8-black-widow-engine>)

Neil Bottle has acquired one of these kits and is hard at work building his model.

Neil is reaching out for assistance in two areas. First, he considers the process of making the camshafts to be a bit beyond his current skill level, and he'd like to pay someone to make camshafts for him. Secondly, he has some questions regarding certain construction details. For the most part they are questions about minor inconsistencies or lack of specifications in the plans, that is, they are plan-specific. (example: bronze or brass for the camshaft bearings?)

Can you help Neil? Send him an email at [neil\\_1821@yahoo.co.uk](mailto:neil_1821@yahoo.co.uk). I can forward you a list of his questions. –Wes ([weswag@ix.netcom.com](mailto: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.

## FOR SALE

Owner of several Elmer Wall model engines seeks someone to get them in running condition and to improve their appearance. Amount of compensation to be negotiated. Contact Jeff Richards via email: [eatapeach78@yahoo.com](mailto:eatapeach78@yahoo.com)

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](mailto:mgbyrne3@comcast.net)

-Wes Wagon at [weswag@ix.netcom.com](mailto:weswag@ix.netcom.com)



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## Bob Hettinger

4/29/41 – 1/21/24

BAEM member Bob Hettinger passed away last month. He had long suffered from Chronic Obstructive Pulmonary Disease, and he passed from pulmonary complications associated with influenza. He was 82.

A memorial service is being planned for late May or early June.

