

# The Crank Calls



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**MEMBERSHIP \$25.00 US**  
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**NEXT MEETING**  
**Saturday, March 20, 2021 at the**  
**Golden Gate Live Steamers clubhouse in**  
**Tilden Park, Orinda, CA**  
 Gate opens at 9:00 am  
 Meeting starts at 10:00 am  
 Meeting will be outdoors, masks required.  
 Social distancing will be observed.

**Upcoming Events**

BAEM meetings are usually 3rd Saturday of the month except December. Upcoming meetings:

- March 20, 2021 at GGLS
- April 17, 2021 at GGLS

Watch Crank Calls, BAEM emails and BAEM web page for updates.

## MEETING NOTES

February 20, 2021

Fifteen BAEM members braved the February cold to attend the monthly meeting. The meeting site was switched to the sunny area of the parking lot. Display tables were set up and appropriately spaced chairs provided comfortable, Covid-safe seating. This worked well. See below for Mike Byrne’s report of the meeting details.



## 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

The 2021 dues of \$25 are due. Pay now so you'll be all paid up. Give your check to Paul Denham. Dues can also be mailed to Deirdre Denham at 1937 Merchant St, Crockett, CA 94525. Make checks payable to "BAEM".

The BAEM club is solvent. Current balance is \$6134.07. Recent contributions to the club treasury have been generated by sales of engine construction "kits" (and other items) by Dwight Giles. The club thanks Dwight for generating these contributions.

## CLUB BADGES

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

## SHOW PARTICIPATION

Nothing to report.

## FIRST POPS

Paul Denham displayed two Tochtrop Economy Hit 'n Miss engines he had recently reworked and gotten running. One was built by Dwight Giles, pictured here:



The other one, pictured above, was constructed by a friend of Charlie Reiter. It needed work on valves and piston rings.



Paul shared some of the history of the Black Widow 4 design, (discussed in some detail in last month's Crank Calls newsletter). Paul showed the display box he had constructed for his Black Widow 4. He described some of the woodworking challenges he encountered. Note the solid oak top/front/back, the walnut sides, the decorative routed edge around the top, and the fine work on the corner finger joints, the light and dark woods contrasting dramatically. Nice work!

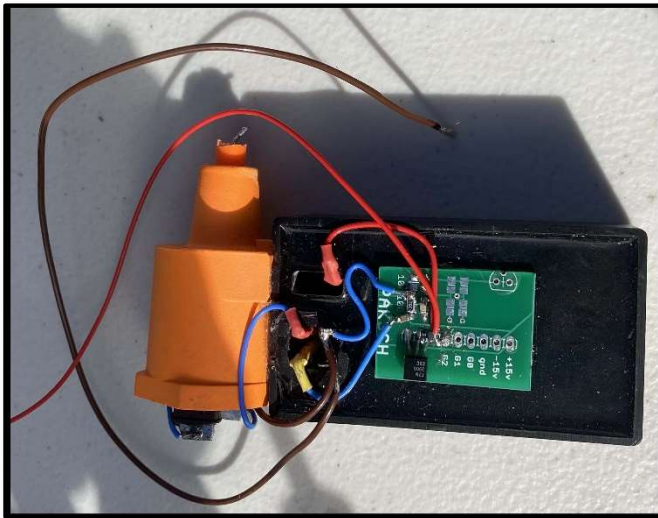


Paul also showed a gas tank he had fabricated to go with the display box.

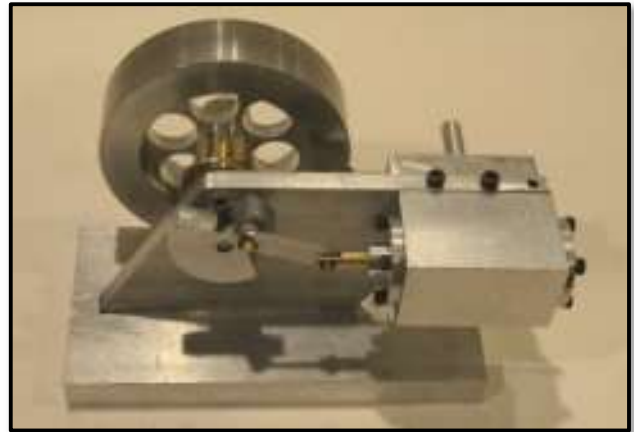
## BITS AND PIECES



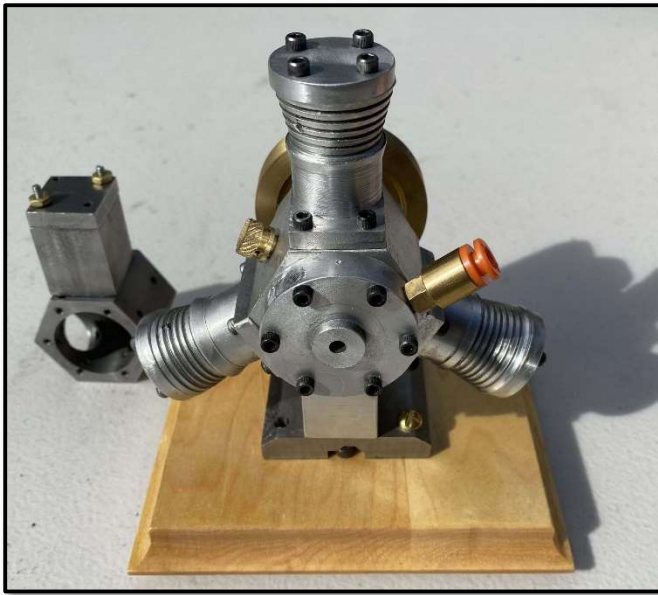
Jerry Franklin showed his progress on the Little Devil casting set he got from Dwight Giles.



Paul also discussed the use of a CDI igniter adapted from Chinese scooter parts. A shop made circuit is needed to generate trigger pulses from a Hall effect sensor or reed switch. There is a Home Model Engine Machinist thread with the details on a "cheap and easy" CDI. Cost on Ebay for CDI, coil, and plug was around \$12.



Mike Byrne brought his horizontal steam (air) engine. This was reverse engineered from some of MrPete222's YouTube videos. Design was for bar stock, 1" bore,  $\frac{3}{4}$ " stroke, double action, spool valve, and reversing eccentric cam.



Chuck Klor showed his version of Elmer's 3-cylinder #11 Radial Engine. This engine uses a disk valve driven by an offset pin in the hub of the crank mechanism and produces three impulses per revolution. Chuck consulted with Dwight and made some esthetic design changes (turned cylinders) to enhance his lathe machinist skills. Chuck reported that all his grandkids got a practice cylinder on his path to a running engine. As built, the engine encountered some heating issues at high RPM. One source for drawings is [http://www.john-tom.com/ElmersEngines/11\\_Radial.pdf](http://www.john-tom.com/ElmersEngines/11_Radial.pdf)

For those interested in this interesting little engine, there is a nice build thread on HMEM site at <https://www.homemodelenginemachinist.com/threads/three-cylinder-radial-steam-engine.6711>



Charlie Reiter noted the mention of wobblers in Mike's virtual tech topic (see last month's Crank Calls newsletter) and brought in several examples:

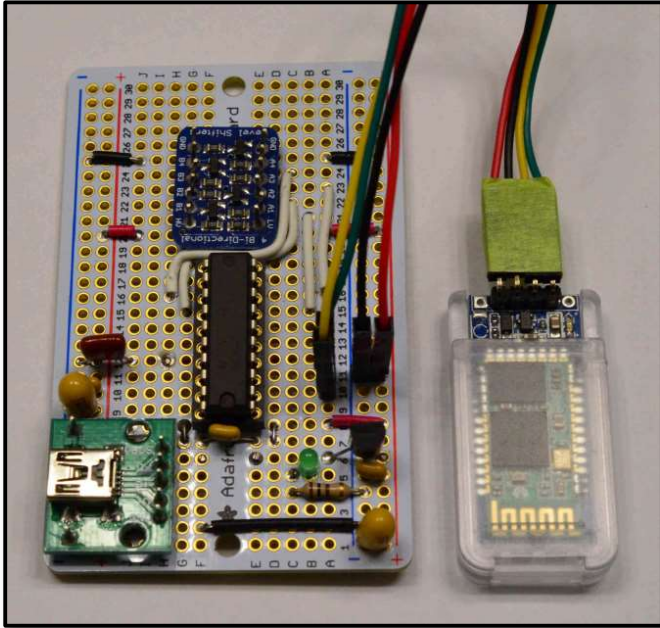
- one built with parts from a dumpster salvaged air pump
- a power steering assembly from a road roller model
- a two cylinder vertical, shown here:



- an engine with a steam boiler, originally intended to power a Tonka toy truck:



Larry Zurbrick showed his implementation of a TouchDRO "do it yourself" digital readout. He demo'ed the unit with a rotary encoder.



The unit will work with any encoder that outputs a quadrature signal such as the linear optical scales available on eBay. It utilizes a TI MSP430 chip to read the encoder and transmits to an Android tablet via Bluetooth. Design information can be found at <https://www.yuriystoys.com/p/android-dro.html>

## RAMBLINGS

**Happy Birthday Dr. Bob!!!** Longtime BAEM member Dr. Bob Kradjian will be celebrating the 90<sup>th</sup> anniversary of his birth on March 16. If you want to send him a card, his new address is 2644 Hallmark Drive, Belmont, Ca 94002.

**Get Well Soon, Dwight.** Dwight Giles is recovering from successful knee replacement surgery.

## FOR SALE

BAEM member Alan Aldrich is shutting down his very complete home workshop. Selling everything at bargain prices. Here's a list of the major items:

- Hit & Miss engine - \$400
- Band saw - \$800
- Bead blaster - \$600
- Metal brake - \$300
- KBC mill - \$4200
- Drill press - \$200

- Hydraulic press - \$175
  - Enco lathe - \$2000
  - Bridgeport surface grinder - \$800
  - Miller towable big 40 welder - \$1500
- Contact Al by phone at 925-827-4195, or by email at: [28closedcab@astound.net](mailto:28closedcab@astound.net)

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Dwight Giles has some stuff he is offering:

**-Castings & Drawings for Örkenrud 340 V8.** This is the same casting kit Wes is using for his build. Price is \$100 donation to club.

**-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 [jig313@aol.com](mailto:jig313@aol.com) or phone: 707-648-1481. Address is 313 Ladera Dr., Vallejo, CA 94551.

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

## NEWSLETTER CONTRIBUTIONS

In the past, this newsletter largely focused on reporting about the most recent BAEM club meeting. With our meetings being somewhat inconsistent due to Covid regulations, we need appropriate content to include in upcoming newsletters. Workshop reports, tech articles, reviews, historical pieces: 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)

