

The Crank Calls



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MEMBERSHIP \$25.00 US

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NEXT MEETING

**May 20, 2017 at
Golden Gate Live Steamers
Tilden Park
Berkeley, CA**

Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

BAEM meetings: 3rd Saturday of the month
Golden Gates Live Steamers Spring Open House on
June 4th

MEETING PLACE FOR May 20th

We will meet again this month (May) at the Golden Gate Live Steamers meeting room in Tilden Regional Park, Berkeley, CA..

MEETING NOTES

April 15, 2017
Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:00 am at the Golden Gate Live Steamer Facilities.

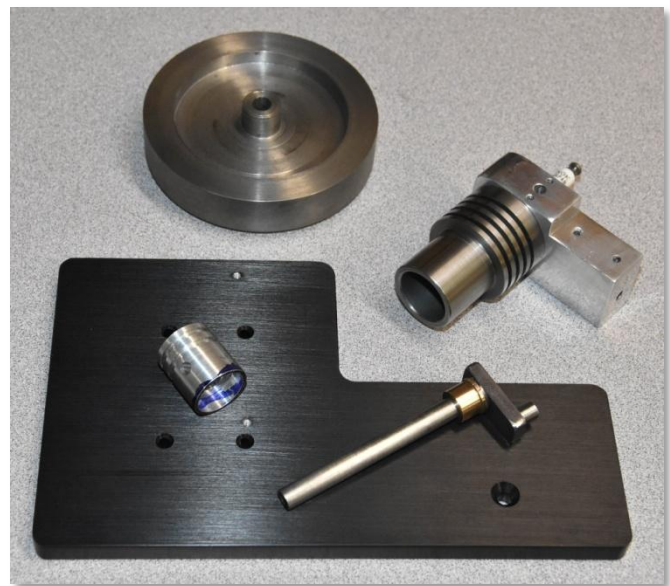
VISITORS: Paul Diehn heard about us from Jim Bove and joined us late in the meeting following the usual difficulty in locating our meeting site. He tells us that Jim has moved to Southern California and sends greetings.

MEETINGS: We are making plans to join with the Golden Gates Live Steamers for their next Spring Open House Sunday meeting. The date is June 4. Those of us who joined with them last year had a great time.

The Knight Foundry in Sutter Creek holds an open house from time to time. Check with their web site for dates at: knightfoundry.com. The foundry dates

to 1873 and operated until 1996. Volunteers plan to host the foundry as an operating museum

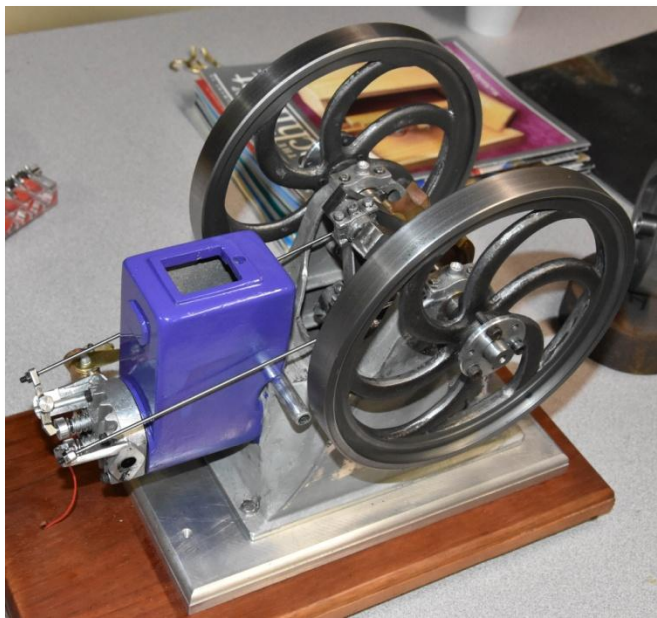
GROUP BUILD:



Wes Wagon, Aaron Keller, and Steve Hazelton brought us up to date on the Webster Engine build. Steve related his adventures with machining the cast iron flywheel. He found that he had to considerably slow the lathe, use very sharp tools, and to carefully protect the lathe ways from the cast iron dust. Various methods for controlling this nuisance were

discussed. They included old cloths, saran wrap, magnetic blankets, and even a directed shop vacuum nozzle. For the safety of the operator, an effective dust mask is a good idea. Wes is using a lap to hone the 7/8" cylinder. Methods of using cylinders laps and how best to use a bore micrometer were also discussed. Dwight reminded us that cast iron is often quite variable in hardness from spot to spot within the machined part. Wes also found that brittleness was a problem when a chucked spigot snapped off. Aaron is making the aluminum base for the engine. He was able to have the piece nicely anodized at work. He also furnished the titanium valves. The build goes on!

FIRST POPS: Ray Fontaine told us that his Jerry Howell Powerhouse popped and actually ran for about 15 seconds. At that point the timing gear slipped. This resulted in a tear down. He'll return it tuned, repainted and hopefully—running smoothly.



For the very first time we saw a First Pop [video](#) from a USB on our new big screen. It was President Paul's Atkinson. He plans to run it after the meeting.

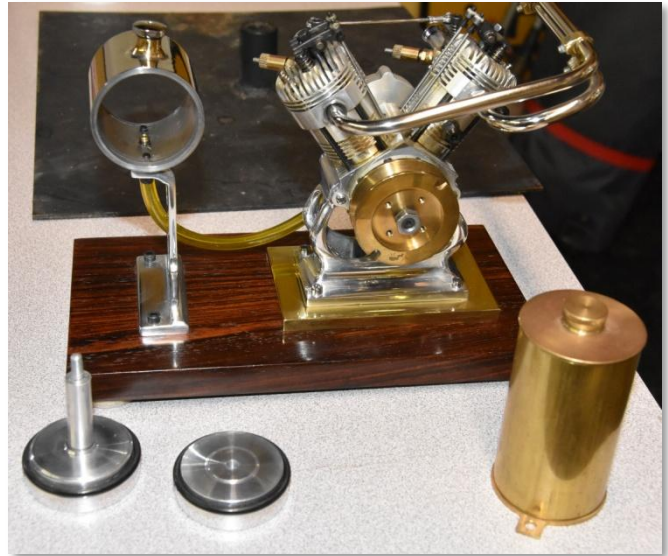
TREASURER'S REPORT: We're in the black and doing well.

We had an auction for a rare Gasoline Engines Book. It went for seventy dollars. We also had an auction for a 3D printer from a company that went

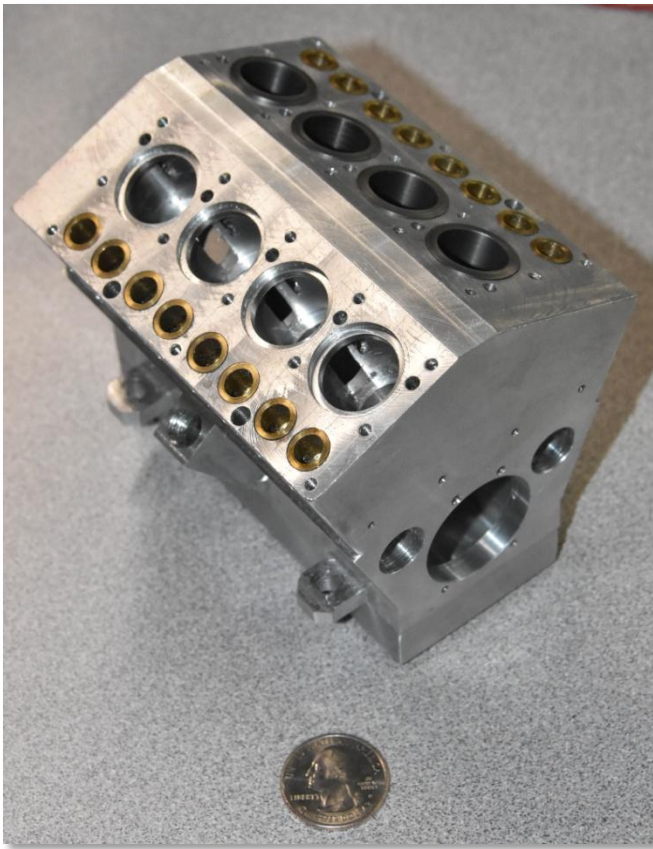
under before releasing the software. It went for \$35.00.

CLUB BADGES: If you are a member in need a badge, contact Mike Rehmus (mrehmus@byvideo.com) who has offered to produce them.

BITS AND PIECES



The secretary presented a quick and easy method for building a fuel (or water) tank using a threaded rod and two end plates with "O" rings. The photos are explanatory. Any tubing can be used with the usual arrangement for filling and outlet being threaded or silver-soldered. These photos can be seen in the March 2017 Crank Calls at the baemclub.com site.

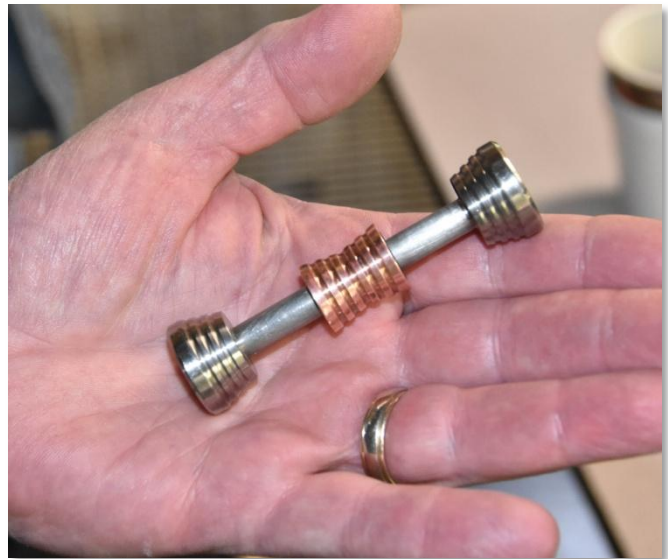


Joel Cohen is embarking on a truly remarkable project. It is to be a V-8 based on duplicating the 15 cc. Edgar Westbury four cylinder "Seal" as a Vee twin! As usual, he is working from the solid and planning his machining moves on a CAD program.

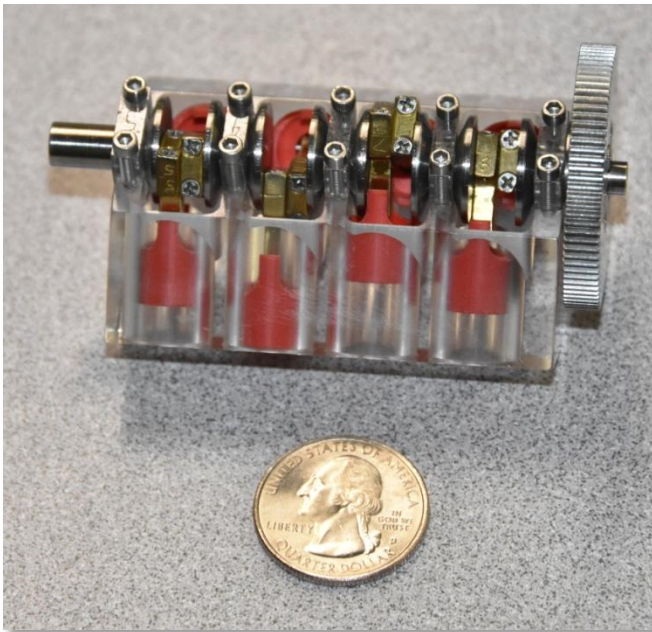
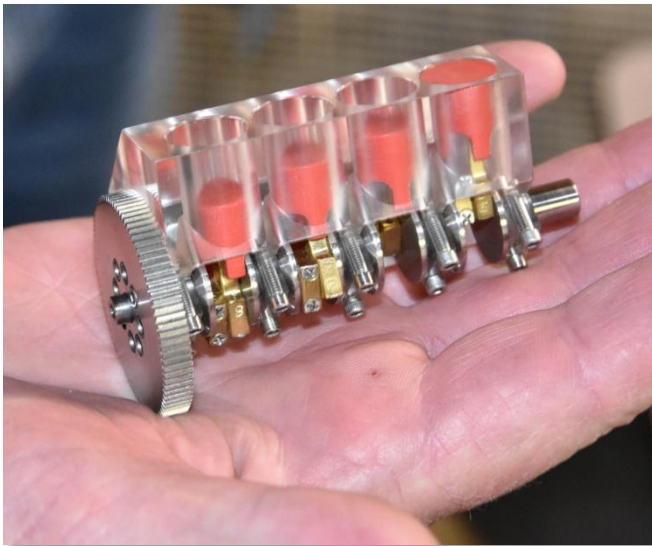
The Vee is at a 22.5-degree angle which allows for a power stroke every 45 degrees. Unlike his previous Seal in the usual four-cylinder in-line configuration, this Vee model will be water-cooled using a wet sleeve arrangement. He found cutting the relief around the sleeves with a modified keyway cutter to be a long and tedious procedure. He left sufficient material to machine the dipstick and breather openings. This engine, when completed and running, will be a Best of Show stopper.



"Mike Rehms tells us of a website: <http://www.yuriystoys.com/>. For Android tablets and phones, they give the DRO software away and tell you where to buy the components for a controller board for almost any DRO spar. A very interesting site for DRO needs."



Lon Keeth showed us a novelty item that involved copper and magnets. It is a rod that has a ring that, when elevated, will slowly descend against all apparent logic. The magic is in the arrangement of the magnets and the use of copper.



Lon also built a clever and very tiny V-8 block with a stainless steel crankshaft, connecting rods and Turcite pistons. The block is machined from Plexiglas's. It's a delightful object and great fun to turn the flywheel and watch the pistons dancing. It also represents some very slick machining.

Larry Bunch built a PM Research kit for a generator called the DYN-1. It sells as a kit for \$49.00. The PM site is easily found on the Internet and is located in New York State. He said the castings were very nice and the kit is furnished with an armature already wound and nicely balanced. It should produce eight to ten volts at ten watts. Larry also kindly offered members pieces of stainless steel. This occasioned a discussion of stainless steel and

magnetism. It seems 304 Stainless is slightly magnetic, 316 SS is non-or negligibly magnetic. Increasing the nickel content contributes to lack of magnetism. Temperature, welding, and other factors have an influence as well.

The CAD drawings for Eric Whittle's V-8 in double size is available, free, from Mike Rehmus.

WEME SHOW:

Steve Hazelton wonders if we should bring one or more 3D printers to our next WEME Show. Two members promptly offered to bring their units. There's your answer, Steve.

Dwight Giles offered to demonstrate his camshaft grinder at the show if someone will help him with its transportation.

After the meeting program, Paul Denham ran his Joel Tochtrop Atkinson cycle engine. The brass counterweights he added contributed to nearly perfectly balance for the complex Atkinson actions. It ran nicely and just "ticks over" at low throttle. Paul prefers a simple and reliable reed relay rather than a magnet and pick up, or breaker points.

He used the David Sage ignition system. For a look at a Sage system, you could go to You Tube and type in: "Homemade model engine Ignition Circuit". For more detail, see "Model Engine Builder", issue #34.

Atkinson cycle engines are here to stay. The Toyota Prius has been using them since 1999. The same company plans a 5.7 Liter V-6 for its Tundra truck line.

The meeting adjourned at 11:23 am.

