

# Bay Area Engine Modelers Club

## The Crank Calls



November 2016

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### **MEMBERSHIP \$25.00 US**

Contact Paul Denham at  
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### **NEXT MEETING**

**November 19, 2016 at  
TechShop Midpeninsula  
2415 Bay Rd  
Redwood City, CA**

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

### **Upcoming Events**

BAEM meetings: 3rd Saturday of the month

### **MEETING PLACE FOR November 19th**

We will meet this month (November) at the TechShop Midpeninsula, 2415 Bay Rd, Redwood City, CA.

**DIRECTIONS:** Take the Woodside Rd exit on US 101 heading West, Make your 1st left onto Broadway, 1st Right onto Charter St, 1st left onto Bay Rd and a left into the TechShop parking lot.

### **MEETING NOTES**

October 15, 2016

Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:00 am at the Golden Gate Live Steamers beautiful meeting room.

Our meeting started with a tribute to George Gravatt who passed away earlier this month after a lengthy illness. George was a strong sustaining force in our club for many years. An inventive and ingenious person, he designed, built, and operated several original engine designs. We will miss his fine spirit and good nature. He was a help to any member needing advice. He built several engines that were later auctioned and added to the club treasury.

**VISITORS:** Lou introduced himself and said he was interested in starting the miniature engine hobby. Several members spoke with him following the meeting to offer help.

**FIRST POPS:** Larry Bunch bought an old hit and miss engine from E Bay. It was in need of all new wires and an ignition system. The decades-old wire was crystallized. After the new sparkies and some jiggering around with the flyweight springs, it came to life! It is a Paul Breisch "Little Brother". Castings are still available for \$250 from ministeam.com. There are many fine videos and photos on You Tube of this excellent old-timer.

### **EVENTS:**

**WEME SHOW:** Steve Hazelton summarized our August event and offered suggestions for improvement. The club members thanked him for his excellent work as the show manager.

**AUCTION:** Skip donated one of his fine laser edge finders for donation to the club. It went for \$65.00 to a happy member.

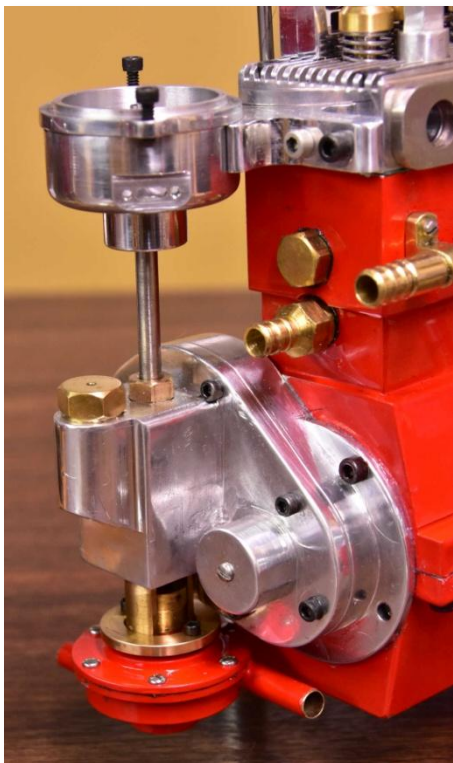
Paul designed a controlled-dwell spark system. This was needed for a small John Meridith engine where spark leakage was a problem. The goal was to reduce the dwell. After building pc boards in an

elaborate design, he decided to abandon it and simply introduce a resistor on the high-tension side. This worked well. Your secretary has had good results reducing spark by using a six-volt battery with a twelve-volt coil.

**TREASURER'S REPORT:** We are solvent. The Goodguys promptly paid us for the August compressor rental costs.

**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**



Dwight Giles showed us the progress on his highly modified Wall Four.

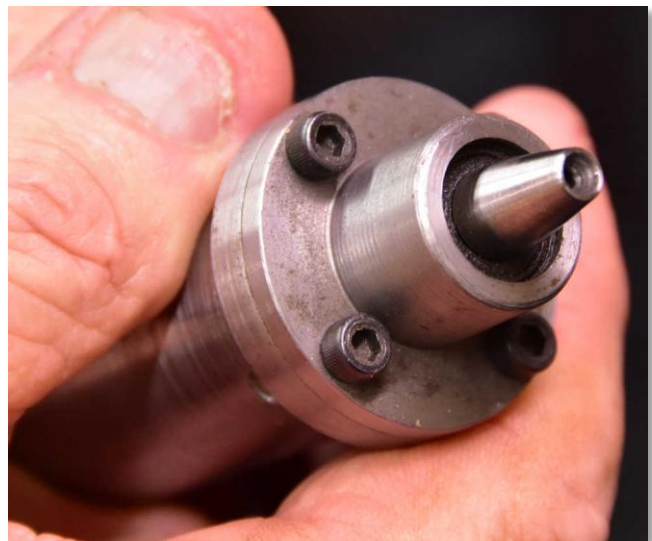


The brass water pump impeller was built by Mike Rehmus on his CNC mill. He had difficulty holding the work piece for an attack by a 9/64" sharp, 2-flute, new end mill. He finally used JB Weld to affix the piece to a sacrificial backing of aluminum. Soft-soldering for compatible metals would be a simpler solution.



Valve design and machining was described by Dwight

Water hardened drill rod is a sufficient material. Exotic materials are not necessary.



He uses a taper and a live center. He finishes and polishes the end opposite the valve-head first. The tapered cut relieves stress

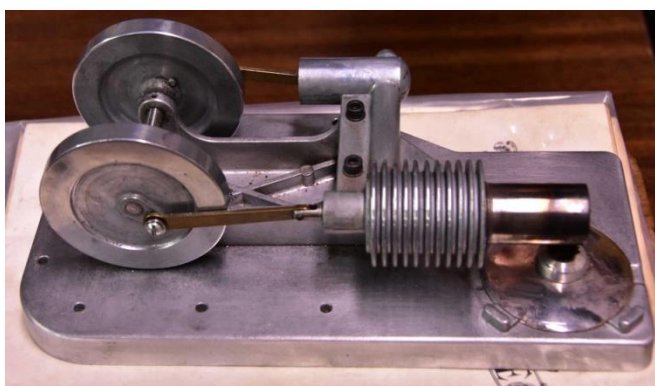
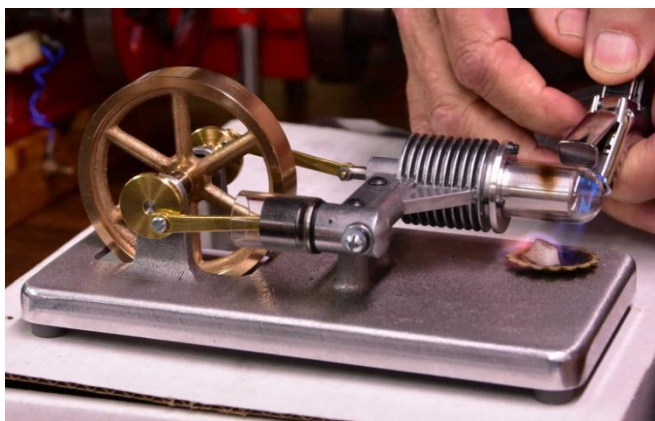
Dwight reminded us that collets rarely run perfectly true.

E-clips are used to retain the spring and cup.





A smooth radius is placed between the valve head and stem to relieve stress. Also added is a small groove in the middle of the head is used to allow for a lapping tool access.



Steve Jasik showed two Stirling engines. One was purchased from John Palmer's estate, the other Steve machined from a PM Research kit. The Glass Works "Solar engine Number 15" is listed in the on-line catalog at: [pmmodelengines.com](http://pmmodelengines.com). The cost is \$159.

"ESBIT" dry tablets can be used as a heat source. A small metal container for alcohol also works well.

"Purol" hand cleaner will also work well with its high alcohol content. Can you believe that people are drinking this stuff in recent years?

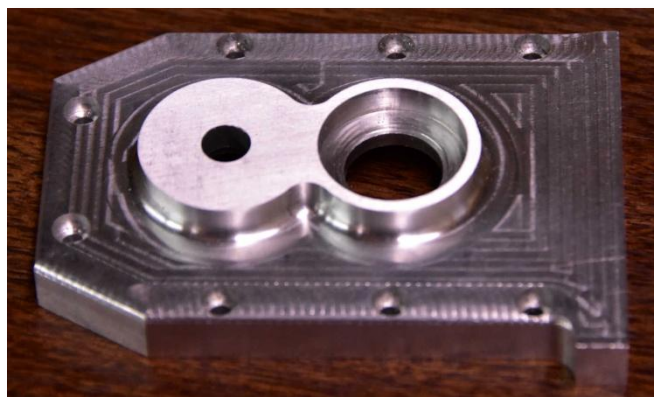


Steve Zettler is a recent member who has just purchased a 1953 South Bend lathe. He is taking a course in machining and showed us his latest project, a very nice hammer. This required knurling, turning a taper, and hardening skills. Steve has also taken custody of the club set of "Model Engineer" volumes. He will review these at his leisure and eventually return them for others to see.

He is also making a set of vises and has learned how to make single point threads on a lathe.

Astronomy is another of his interests and he has made adaptors for his telescopes.

Paul Denham made a flashing LED clock for Dwight as a thank you for his many efforts in helping other club members. It not only keeps time, it flashes a thank you to Dwight.



Jim Piazza is still making parts for an Offenhauser engine. He received an intake manifold and turbocharger pieces that he may choose to duplicate.

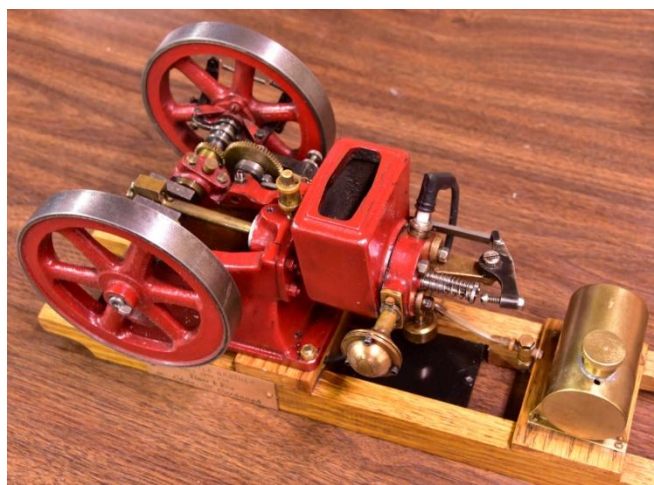


as a CNC project. Jim showed us his latest batch of Offy parts.

How to re-charge magnetos? This problem crops up with Wico and other ignition systems. The details for making a charger is available in "Gas Engine Magazine", March/April 1978. It is titled "Magneto Magnet Charger" by H.L. Ritter.



Bob Kradjian showed us his first effort at making a two-cycle engine. He employed a technique of taking a running engine, in this instance, a Merco .61, and replacing each part one at a time. After each part was fashioned, the engine was reassembled and run to confirm function.



To conclude the meeting, Paul then ran the Breisch "Little Brother" after first dealing with a stuck ball-check valve. With that issue cleared up, it ticked over beautifully.



## THE PICTURE PAGE

### GGLS BAEM MEET UP SEPTEMBER 23, 2016

Here is a follow-up report of the Golden Gate Live Steamers get-together of September 23 just a few days after the meeting described above. Our group was invited to show engines to the public attending their show.

Members Bob Hettinger, Paul Denham, John Meridith, Larry Bunch, Bob Kradjian, Aaron Keller, Anthony Rhodes, and Glen Christoffersen showed engines. Roy Anderson dazzled us with his locomotive under full steam. We enjoyed fine weather, excellent visitors, good food vendors, and a warm welcome from the GGLS members.

