Bay Area Engine Modelers Club

The Crank Calls

July 2017

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NEXT MEETING
July 15, 2017 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 July 15th

We will meet this month 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

June 17, 2017
Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:07 am at the Tech Shop meeting room in Redwood City.

VISITORS: No visitors at the June meeting..

MEETINGS: We joined with the Golden Gate Live Steamers Spring open house recently. GGLS President Mark Johnson and his executive group decided to "split" the donation-jar money with our group. This is just another example of how our two groups are combining beautifully. They also professionally wired the video screen and it now works seamlessly. We will also coordinate our newsletter meeting announcements for the two clubs.

WEME SHOW NEWS:

We have just been in contact with Harry Daviess of the Good Guys who welcomes us to the 2017 West Coast Nationals August 25 to 27 at the Alameda Contra Costa Fairgrounds. There is a Facility Map on the Good Guys site (Google: West Coast Nationals) that actually shows our building and identifies our show. It will require several clicks to enlarge the Google map.

Steve Hazelton will add paid advertising for our WEME show to our Facebook page. Thanks for your hard work, Steve.

We are hoping to have a new display of a third-scale 3D printed flat-head V-8 and other interesting mechanical devices.

Signage for our group has been a chronic problem. Various suggestions were made.

Jim Moyer regrets that he cannot make the trip down from Washington State and sends his best wishes. John Vietti who has been a stalwart at our show for several years is going to the North Central

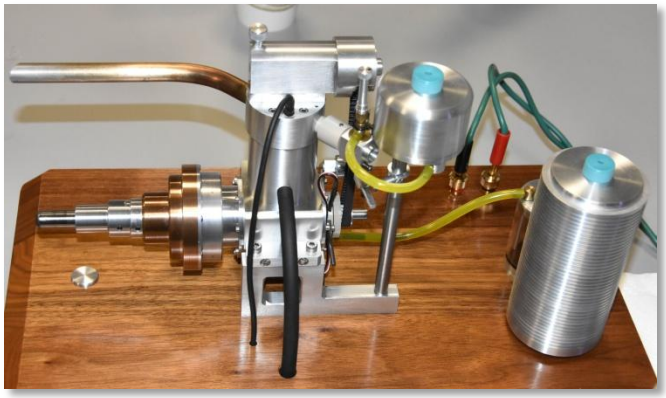
Wisconsin Steam Show the same weekend as WEME, but sends regards.

FIRST POPS: See Dick Pretel's engine in "Bits and Pieces".

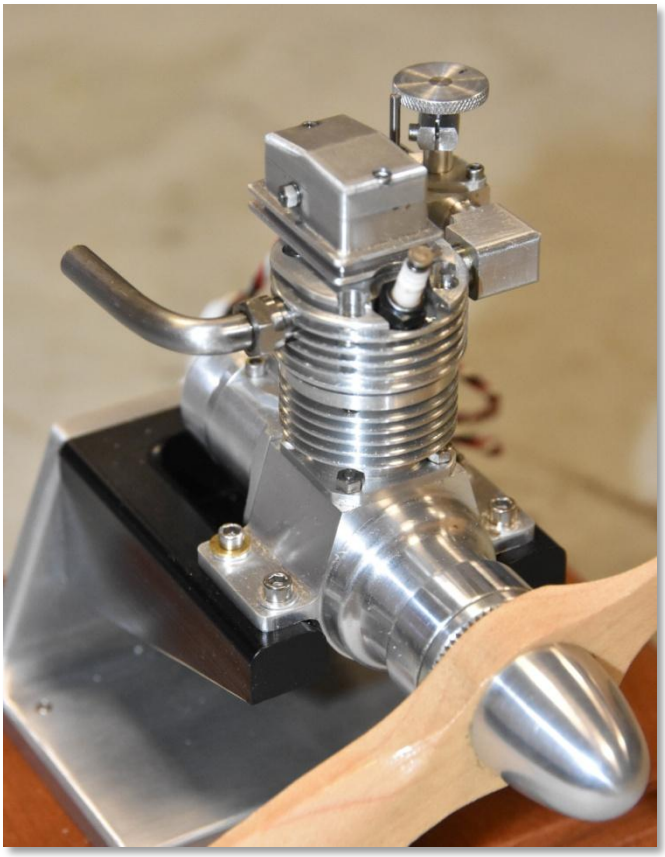
TREASURER'S REPORT: We're doing well with all bills paid.

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

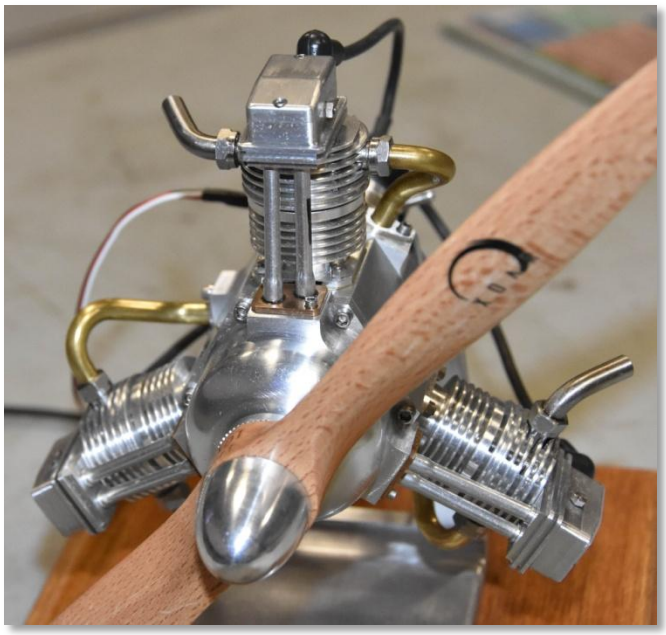


Dick Pretel showed us a pretty single-cylinder engine he made out of parts on hand. The parts included titanium valves, ½ inch rings, and a Kavan electric water pump. The remainder is from 7075 aluminum and is an original. When attempting to fire it up it seemed that the 12-volt polarity had become reversed and this resulted in a blown fuse. Eventually, a patch-work connection around the fuse was fashioned and it fired up nicely. Earlier, he had problems with cylinder head heat that caused the fuel to "boil". This problem was solved with a plastic called "Peek" that nicely insulated the carburetor. It seems that "PEEK" refers to polyether ether ketone also known as: "Victrex PEEK" an engineering thermoplastic stable up to 500 degrees F.! Check the Internet for vendors. It's expensive, but $17 for a foot of ½ inch rod is manageable.

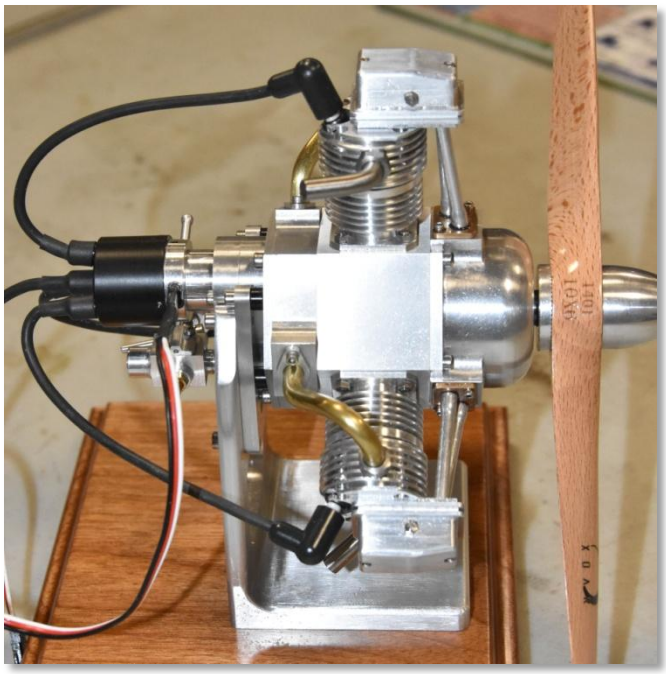


John Meredith brought his single-cylinder Eric Whittle engine, dubbed the "Robin". It has the usual immaculate finish we expect from John.

He also built a flat-four original engine based on the same cylinder and piston assemblies as the Robin. This engine is a beautiful runner.



Not content with that, he decided to fashion the same components into a three-cylinder radial! A "Tri-Robin", if you wish. It is also a beauty.

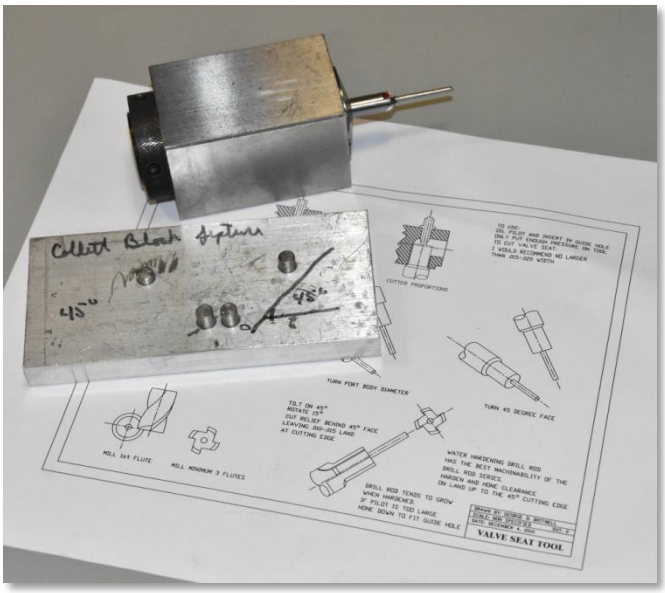


The camshaft for the radial posed a problem for John. He devised a rocking bar cam grinder. With this grinder, the pattern is three times the size of the desired part.

It runs well at half to full throttle, but lacks an idle despite the presence of a crankcase diffuser.

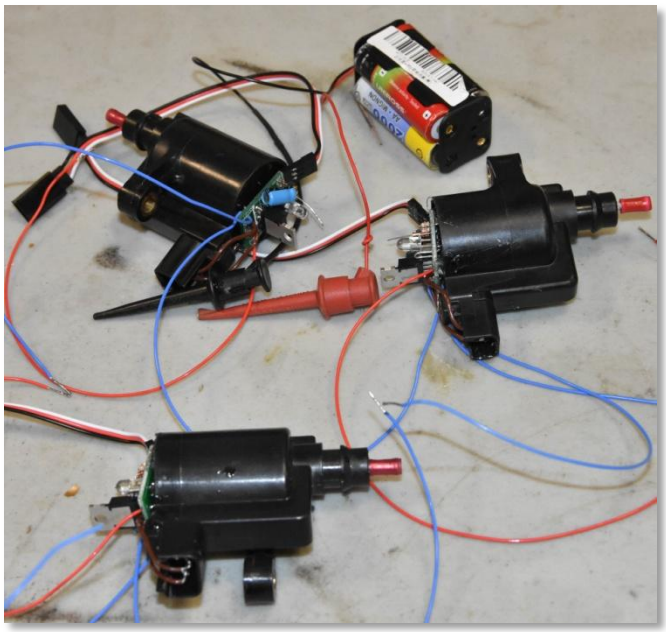
Carl Wilson told us of a tricky repair on an antique Singer sewing machine. It had sheared off 10-28 bolts in a fragile casting that defied extraction. Carl had heard of a method that involved placing a hex nut over the bolt stub and then filling the void with a MIG weld. After successful attempts on a scrap metal mock up, Carl was able to easily extract the broken off bolts on the antique with no damage to the casting. Jerry Franklin had also heard of this approach, and recommended a washer instead of a hex nut.

Carl then gave us a very complete and erudite primer on the intricacies of cam grinding for model engines. With sketches on the white board supplementing his talk, he told us of the geometry of transferring grinding information from a master lobe to the work piece. Followers, ratios, grinding wheel diameters, reduction, three arc cams, and even commercial grinding designs, were all topics in a comprehensive discussion.



Mike Byrne told us how to make a tool for cutting valve seats. He made a four-flute cutter using a collet and a small fixture to make a cutter with the proper rake angle. It is now out for heat-treating prior to use.

THE WEBSTER GROUP BUILD:



Paul Denham has contributed the ignition system for three of the Websters, and just to add to the merriment he added cams for the engines. He gave us a full explanation of his cam cutting procedure. He used a lathe, but it could also be done on a milling machine.

Aaron Keller described his cutting of head gaskets for the Websters using a laser. It worked nicely. He has sent other metal parts out, for anodizing no less!

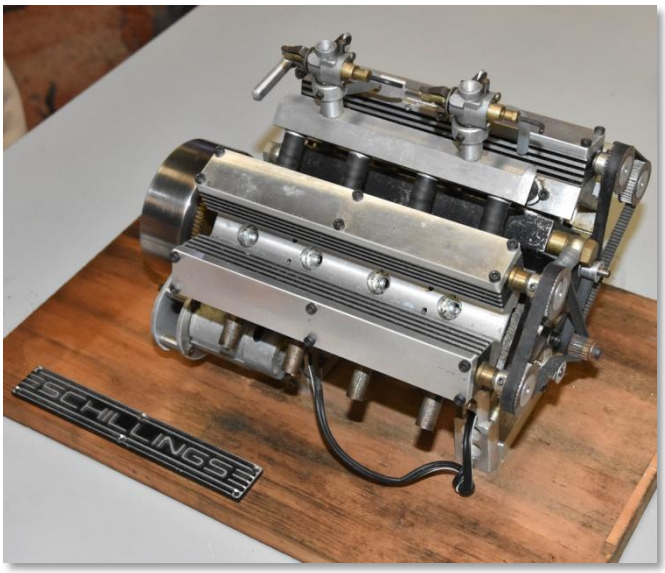
Mike Byrne donated three sets of valve springs and clips for the Webster project; this is truly a group build.

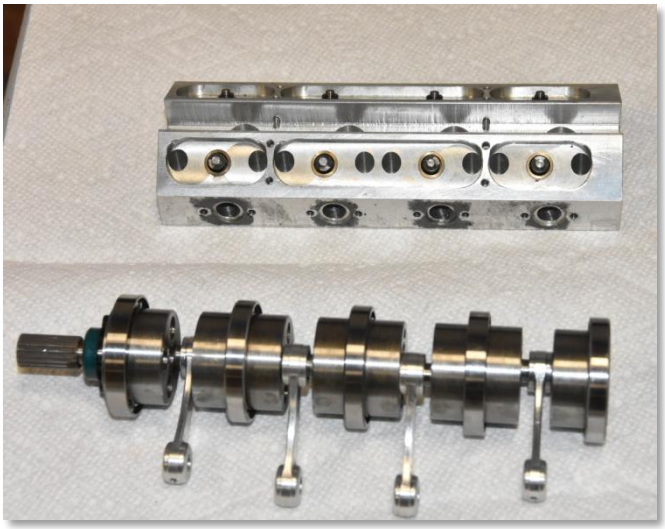
TECH TOPIC:

Mike Byrne continued with a very detailed and nicely illustrated Power Point discussion of making gear cutters and making spur gears. It would not be possible in the limited compass of meeting notes to do justice to his comprehensive presentation. Despite the complexity of the subject matter, a lively discussion was engendered. Kudos to Mike for a masterful forty-seven minute presentation.

The meeting was adjourned at 11:56 am. Remember, the meeting is at the Tech Shop again.

Other Sightings at the June Meeting





Our Secretary Bob Kradjian's Schillings V-8