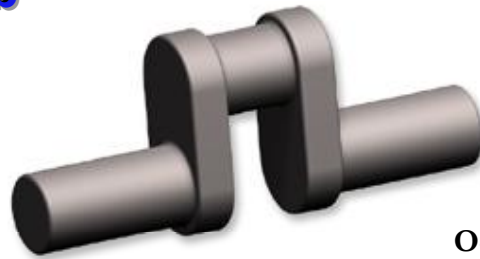


Bay Area Engine Modelers Club

The Crank Calls



October 2016

President	Paul Denham	pedenham@comcast.net
Secretary	Bob Kradjian	bkradjian@aol.com
Treasurer	Deirdre Denham	pedenham@comcast.net
Events Coordinator	Steve Hazelton	steve.hzltn@gmail.com
Webmaster	Mike Byrne	mgbyrne3@comcast.net
Editor/Printer	Larry Zurbrick	baem_editor @pacbell.net

MEMBERSHIP \$25.00 US

Contact Paul Denham at
pedenham@comcast.net

NEXT MEETING

**October 15, 2016 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

MEETING PLACE FOR October 15th

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

MEETING NOTES

September 17, 2016

Bob Kradjian, Secretary

President Paul Denham called the meeting to order at 10:02 am. We are meeting in a spacious and comfortable room through the courtesy of the TechShop in Redwood City.

A discussion of our August WEME show focused on improved advertising for our location on the Fairgrounds. Many attendees had no idea that there was an exhibit of miniature engines. Improved signage is one suggestion. We also had more empty tables than last year, partially due to illness of key club members. Great credit is due to Steve Hazelton for his consistent efforts in managing the show and for transporting many of the heavier engines. Shannon and Irene Lile did a great job of transporting and displaying John Palmer's huge tractor and the large J & E engine. The Liles are also displaying two hit and miss engines in other shows that were donated by Paul Denham.

The membership expressed an interest in having a supplemental publication of photos of engines and scenes from the WEME show. Newsletter Larry Zurbrick will develop this and would appreciate photos to be selected for this project.

The "Novo project" is a donation to the club of a full sized hit and miss engine. It is estimated at about four horsepower and is approximately four feet tall. The weight is about 600 pounds. It runs well but needs repair to the flywheel crank handle. Several options were discussed. One was to offer the engine for sale to our members, also an auction was suggested. A final thought was to list it for sale in the newsletter of Branch 3 of EDGE &TA. In any event, proceeds are to be donated to the BAEM treasury.

Scott Overstreet described an eleven-inch Logan lathe that he has overhauled and wishes to sell. It features a two and a quarter by eight spindle, the collets are five C, the chuck is a four jaw, it has a quick-change transmission, single-phase motor, and V-belt spindles. The value is estimated at \$1500.

VISITORS: Well, not a new member, but an old friend who hasn't visited recently is Larry Bunch. Larry has a machine shop in Modesto and lives in Vacaville. At present, he is developing a hit and miss engine and is incorporating one of Paul Denham's wizard ignition systems.

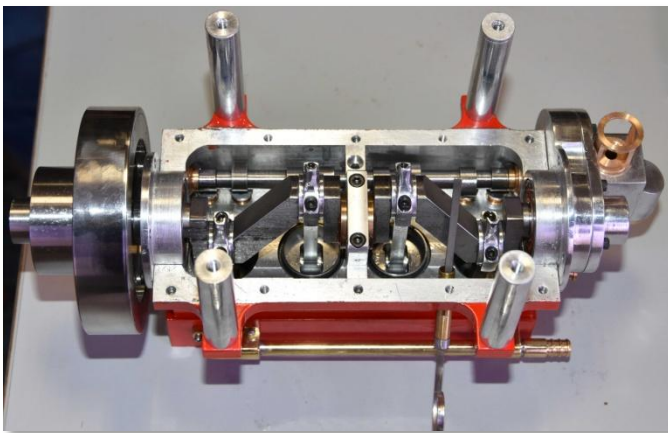
FIRST POPS: None reported.

EVENTS: The Golden Gate Live Steamers have kindly asked us to show engines at a Fall Event showing at their beautiful Tilden Park facility on Sunday, October 23. We have promises from at least a half dozen members to show engines. It should be a relaxed and pleasant afternoon without the stress of our larger WEME effort. They will have tables and we will provide our club shade equipment.

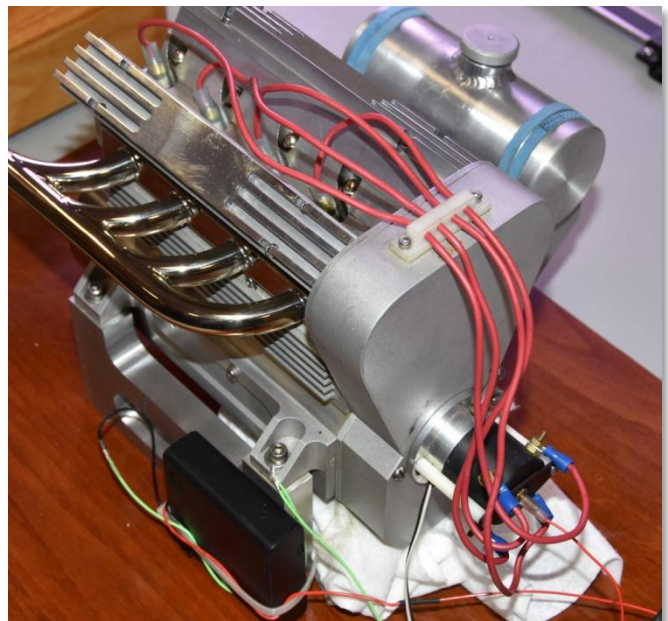
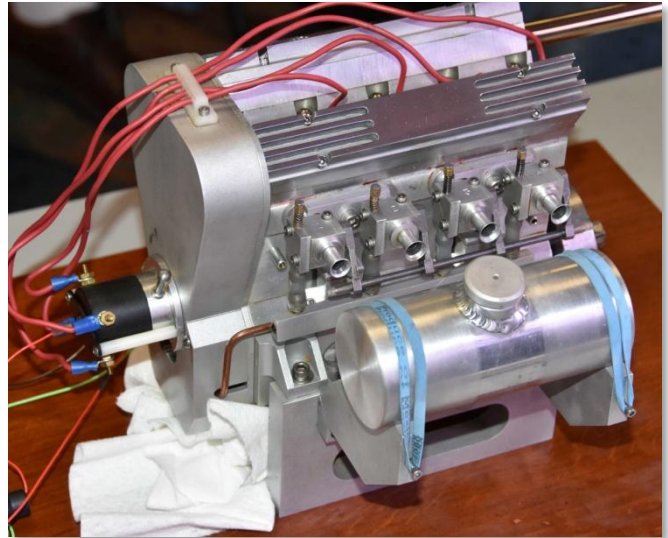
TREASURER'S REPORT: We are solvent, and have paid our for our show compressor. Those funds will be eventually reimbursed.

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

BITS AND PIECES



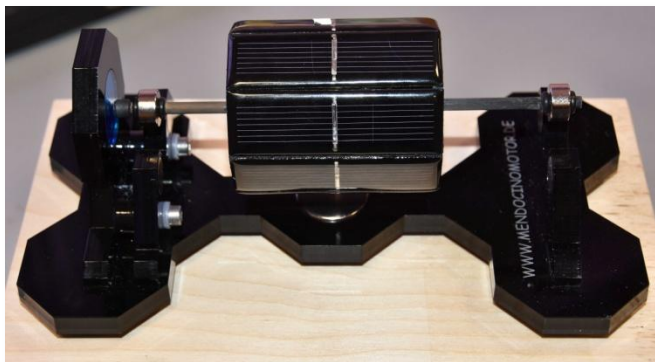
Dwight Giles has finished the rods and pistons on his very pretty in-line four project. He had to carve material out of the pan to gain relief for the connecting rods. The project is based on highly modified Wall Four castings. The 30 cc. design is now around 46 cc.



Paul Denham told us of his work with reed relays after blowing a number of Hall sensors on the Paul Bennett twin overhead cam four-cylinder engine. He then treated us to a run of the engine. It now runs great with a hot spark and has also been fitted with a new throttle arm allowing for a reliable idle. Paul says the reed relay functions exactly like a set of points and are durable and reliable.

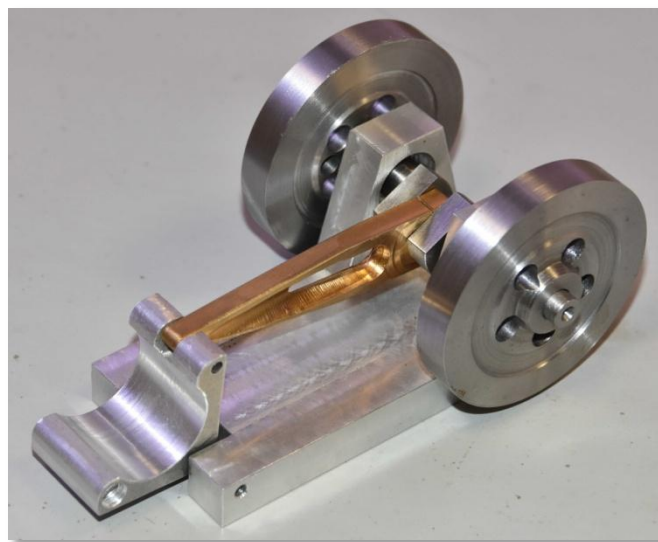


A discussion of the Schroeder Simple Single followed. This was an attempt to introduce a novice builder to a project that would likely result in a two-cycle running engine. It uses a Cox 0.49" cylinder, piston, rod, and head assembly. These are easily found and quite cheap. The Schroeder plans allow you to build a crankshaft, tapered collet for the propeller, crankcase, and back plate intake system. This results in a reliable runner.



At the WEME Show, we displayed four "Mendocino Motors" as an adjunct to our usual engine display. They, combined with our usual display of Stirling Motors, elicited a lot of interest

from our visitors over all three days. The Mendocinos are intriguing devices combining magnetic suspension of a rotor with solar-powered coils that create a direct current motor against a permanent magnet positioned under the rotor. Is it free energy? Yes, it is if you have sunlight. However, the torque developed is minimal. The "Mendocino" part of the name derives from Larry Spring who lived in Mendocino County and developed the clever switching circuits in the rotor that replace brushes and a commutator without friction. If interested in these marvelous devices, it's best to access You Tube, simply type in Mendocino Motor and scan the first few entries. This is a great way to teach youngsters principles of magnetism and solar power. Also these motors are available on eBay and Amazon. Good for the grandson!



Jerry Franklin finished his treadle motor from plans and parts supplied by Dwight. It operates smoothly and is a great way to display the conversion of reciprocating to rotary motion. He used some nice fluting on the connecting rod. He also did some clever balancing on the flywheel and ran in the bearings using toothpaste as a fine abrasive. It qualifies as a first pop and is his first major project. Very nicely done, Jerry!

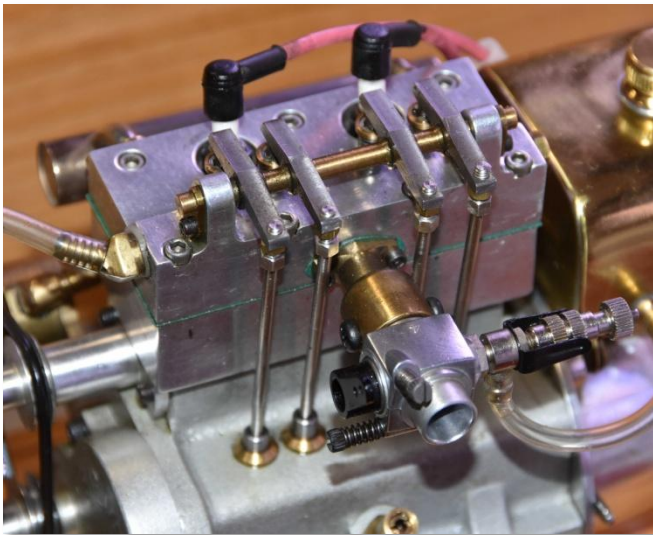
Mike Rehms showed us some very large inside micrometers used by his late father-in-law, a machinist at Mare Island.

He also showed us a DRO for his ten inch Logan lathe. He couldn't mount a glass spar because of space considerations. He found an alternative with

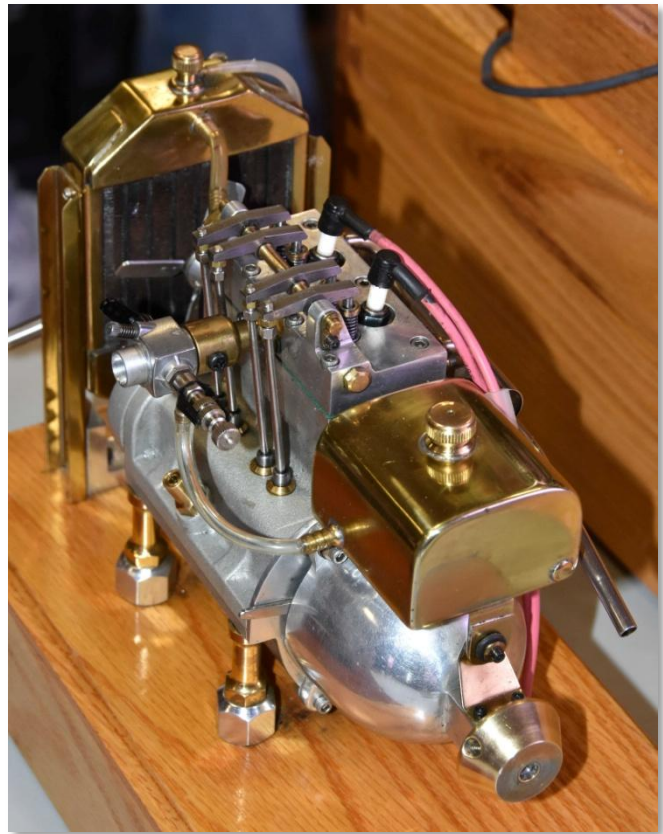
accuracy that is quite acceptable. The cost at \$55 is more than reasonable. It does not include diameter mode, but has all the other standard readouts. The brand name is "iGaging" available on eBay and the web site is "igaging.com". The line is also available from Grizzly but under their house branding.

Aaron Keller brought us up to date on his cylinder boring work. It's great to see his machine work developing nicely.

Glen Christoffersen told us of a Stirling engine he saw at the Great Oregon Steam Up in August. It was a double acting Stirling with a Coleman tank for the fuel source. The owner will actually deliver the engine to the Bay Area from Ontario. For those needing another display engine, it is available at \$1100.



Paul Denham fired up Dwight's Silver Bullet with a new Denham ignition system. The little twin runs nicely with a good idle. This is a design by the late Bob Shores.



The fire extinguisher situation for our WEME show was reviewed by Lon Keeth. He was able, through a friend to provide loaned units for last show. This offer may be available for future shows. Mike Rehms tells us that the county already has adequate fire control equipment on site, the extinguishers are for our personal use and security.

TECH TOPIC

Dwight gave us a primer on the machining of connecting rods and the fitting of piston rings. If not using an oil pump, a “dipper” end on the rod cap with a small hole will provide adequate lubrication. He developed a nice fixture to hold the rod on the desired angle. The fixture is then turned over for the opposite side. He prefers 2024 or 7075 aluminum to the more common 6061, as the latter is nearly twice as hard. It is also easier to drill and tap without the “gumminess” occasionally experienced with 6061.

A rule of thumb for piston ring gaps is to allow two and a half to three thousandths for each inch of bore diameter. He uses a stainless steel bag to enclose the rings for heat-treating. A bit of paper or a fragment of a matchstick will help consume oxygen. He also has developed a fixture to hold the ring open to the desired diameter and to hold the gap open during heat treatment.



For heat-treating, Dwight has settled on 1200 degrees for an hour. When removed from the bag, the rings will show a dull red. The rings are then immediately dunked in cold water to achieve the desired temper.

To provide the slit in the oil rings, a one-inch diameter, six-thousandths inch slitting saw is used.

For precise details, see Dwight's article in Model Engine Builder.

THE PICTURE PAGE

PHOTOS FROM OUR AUGUST 2016 MEETING BY JERRY FRANKLIN

