

The Crank Calls



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

**September, 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 September 16th

We will meet this month (September) 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

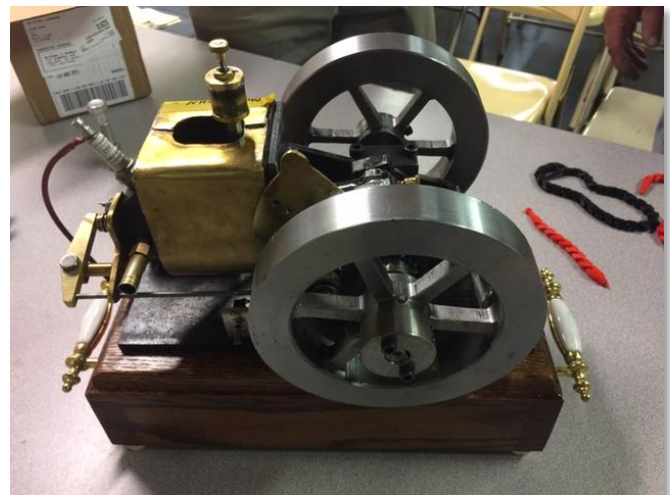
August 19, 2017
Bob Kradjian, Secretary

President Paul Denham called the meeting to order early at 09:55 am at the Tech Shop meeting room in Redwood City. Please remember that the September meeting is also to be at the Tech Shop facility.

VISITORS: Enda Murphy re-visited us. He lives in Tennessee but his employer has a facility in Emeryville. Enda hopes to coordinate his California visits with our meetings if possible, and enjoys following our Crank Calls newsletter. He is setting up a dedicated machine shop at his home with plans to soon build engines. We look forward to your visits, Enda.

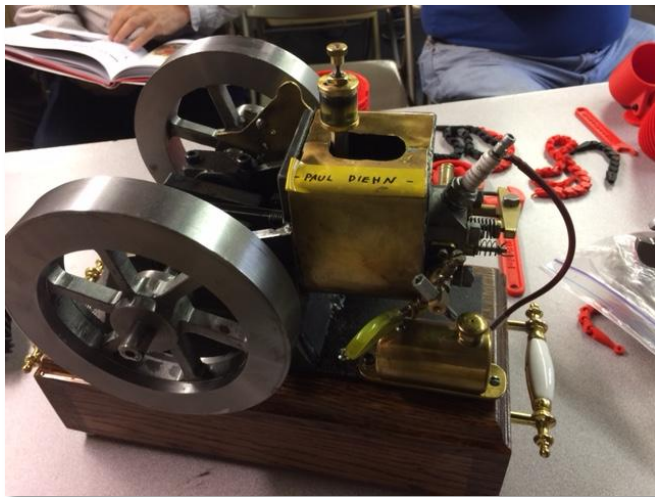
Lou McMillen drove up to our meeting in an amazing, original 1937 Chevrolet canvas covered truck. He represents a railroad club. He and his fellow members will join us for a display of trains from their railroad club in Crockett at the WEME show. Thanks for the help, Lou.

FIRST POPS:



Paul Diehn was reunited with his PM Research hit and miss engine that he built from their plans using bar stock. At the last meeting, several members offered to help him with the problems that were sufficiently great to prevent it from running. They

took the engine to their shops and returned it to Paul at this meeting. The problems included an exhaust valve push rod that was too long and actually caused the valve to break against the piston. The damage necessitated a new piston and rings. The spark plug didn't seat properly and required some re-machining. Dwight made a new fuel tank and a box-jointed case as well as an oiler for the cylinder and a grease fitting for the big end of the connecting rod. Paul Denham fashioned one of his excellent ignition systems that is guaranteed to give you a dandy jolt. Other areas in the build needed attention. There were several pins that had sheared, and another joint that required welding. With all these modifications in place, the engine fired up nicely.

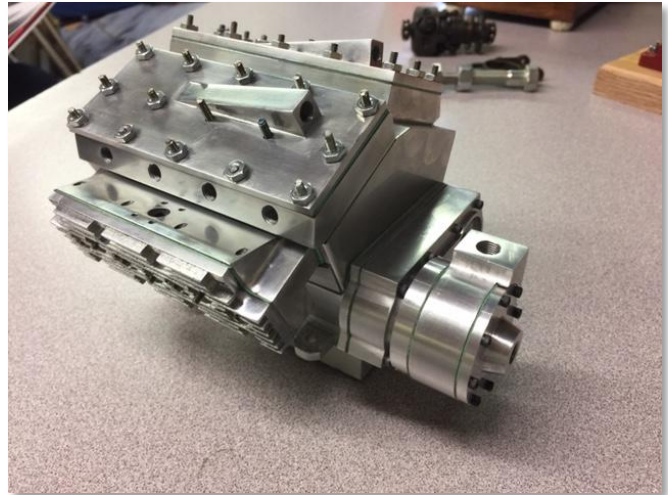


Recall that Paul Diehn previously built a PM research Number 10 steam engine. For that engine, he designed his own boiler using a Harbor Freight propane burner.

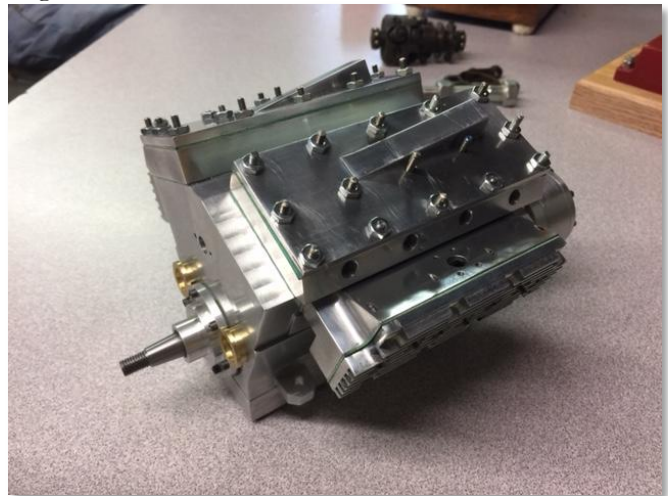
TREASURER'S REPORT: All is well. We anticipate printing, advertising, compressor, fuel and other expenses for the upcoming WEME Show.

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

BITS AND PIECES



Joel Cohen brought us up to date on his "eight cylinder Seal Minor" project. He is building this from billet, as he prefers to avoid castings. Using the base dimensions of the original four cylinder Seal, he devised a forty-five degree V-8 with the help of his CAD program and a lot of imagination. The result will be a remarkable and unprecedented engine.



At present, he has completed the crankshaft, connecting rods, and pistons. Next will be the camshafts, yes two of them. It's really a pair of four cylinder engines, and will not have the single camshaft arrangement of early Fords. He will probably run a distributor from one camshaft and the water pump from the other. Since the engine is developed from the 15 cc. engine, the displacement will be 30 cc. The original Seal used updraft carburetors and Joel's design will be a single downdraft to start. He may use multiple carburetors later. The crankcase lubrication will be of the splash

type; no pump is planned. The radiator is from a computer circuit-cooling device. The notion of taking an established four-cylinder design and converting it into a V-8 is not a new one. The greatly respected Challenger V-8 was born from combining two Wall Fours back in the late 1960's.

Charlie Reiter showed us a nifty tool he made for bending thin sheet aluminum all for a high-end application, a dollhouse roof, no less. Trimming thin layers of bent aluminum without distorting it creates a challenge. His bender solves that problem.

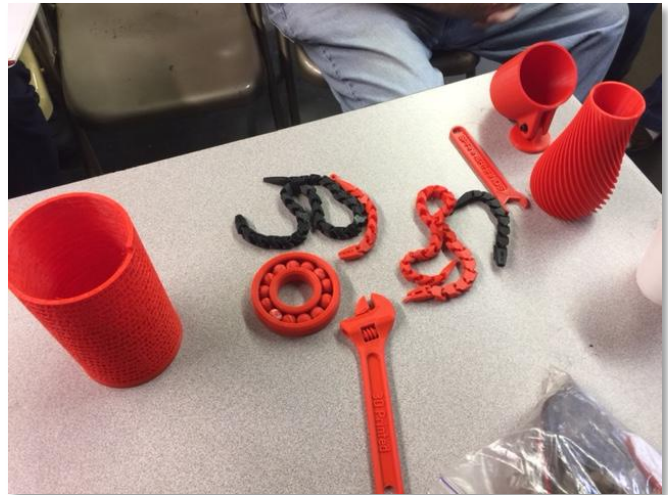


He next showed us a cylindrical square. The device is relatively rare and is called the Brown and Sharpe Precision Center. For highly precise metrology applications, this tool can very accurately measure a near-perfect ninety degrees.



Charlie was gifted a Stuart steam hammer kit some years ago. After a suitable period of waiting for the castings to age, he recently turned it into a very fine model (see photo).

Jerry Franklin showed a governor from a small gas engine as a conversation starter for the kid's table at the WEME show. Jerry does a great job stimulating interest among young attendees at our shows.



Mike Rehms has printed a number of 3D items to be displayed and given away at our show. He will have his laser cutter running, but without the laser head for safety reasons, as well as his 3D printer. He will be joined by Eric Harrell's very large 3D display. Mike showed us a number of novelty items from his busy 3D printer.

A full sized Novo engine is offered to club members (only) for \$500 to be given to the club treasury. Contact the secretary for details.



Peter Lawrence related his experiences at Dwight's "cam grinding school". He says he learned a great deal. The cam is for his four-cylinder test engine, a "mule" for the V-12 Rolls Royce under construction. He was particularly impressed by

Dwight's cool mist technique to cool the work piece and to cut down on air borne dust.



Issues of heat-treating the shaft included not treating the areas that would need additional center drilling or other machining. Dwight's knowledge and his generosity in sharing it, is greatly appreciated by the club members.

WEME REPORT:

Mike and Paul gave us the latest information on new rulings for the WEME show next week. We were informed that the Fire Marshall would not permit our engines to be run in the exhibit hall! He specified fire hazard and air quality issues. Details of coping with this unexpected ruling were discussed at length. Since the show closely followed the meeting reported here, we can provide a WEME Show wrap-up report to follow.

WEME SHOW WRAP-UP:

Many thanks to show manager Steve Hazelton and all members who put in long hours and hard work in very warm weather. Complying with the Fire Marshall's ruling, we did not run our engines in the building. This led to a peculiar situation where we were faced with a parade of people glumly looking at our very static display of silent motors. The original plan was to run engines, on a schedule, in the pavilion area. This was abandoned and instead, Paul and others set up tables in dirt area adjacent to a noisy compressor. Transporting the engines in and out of the building was tedious and left no one to attend the vacated table inside of the hall. As a result, far fewer attendees were able to see—and hear---our engines in action.

For those with static displays, all went well. Paul Knapp and Mike Showah made the long trip from Arizona with their magnificent museum-quality engines. We greatly appreciate the quality of their display and the great effort in transporting and displaying it over the years.

Eric Harrell's display of 3D magic was well received. His ingenious and instructive one third scale 3D printed flat-head V-8, 2002 Subaru flat four, and complete transmissions, differentials and drive trains held crowds for the entire show. His web site is: 3dprintedengines.com. To see more of this magic, just type in Eric's name on You Tube. It was remarkable to see a complex engine block slowly coming into existence under his printer.

Mike Rehms' 3D and Laser display had a good reception and numerous printed "goodies" were passed out.

Al Aldrich's large and realistic RC tank was a favorite, and although it made some very authentic engine sounds, it didn't produce smoke and passed Fire Marshall muster.

At our last club gathering, we talked about adding lubricant to the fuel in our engines. We had an example of the importance of this when John Meredith ran his Sea Lion at the WEME show. Despite a tank for coolant, the engine suddenly "froze". After a cooling off period, two-cycle oil was added to the fuel and all returned to normal.

Our financial obligations from the WEME show are being settled. We have submitted our expenses to the Goodguys.

Now, as a club, we have the task of plotting our course for future events.