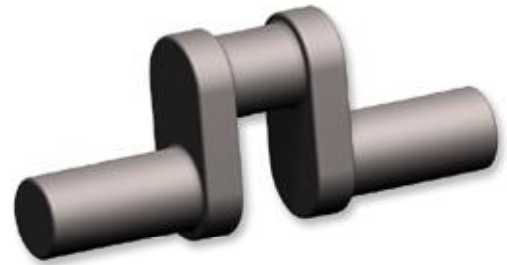


The Crank Calls



November 2012

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MEMBERSHIP \$25.00 US

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NEXT MEETING

November 17, 2012 at
Chabot College, building 1500
25555 Hesperian Blvd, Hayward 94545
Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

BAEM meetings:
November 17, 2012
December 8, 2012

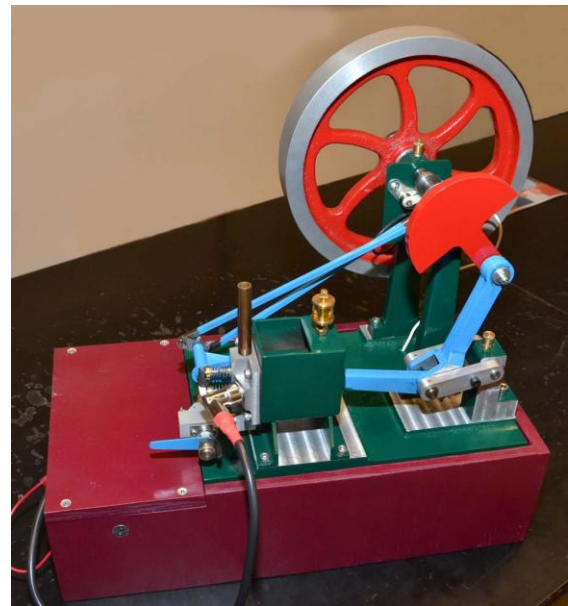
MEETING NOTES

October 20, 2012

Bob Kradjian, Secretary

President Don Jones called the meeting to order promptly at 10 am.

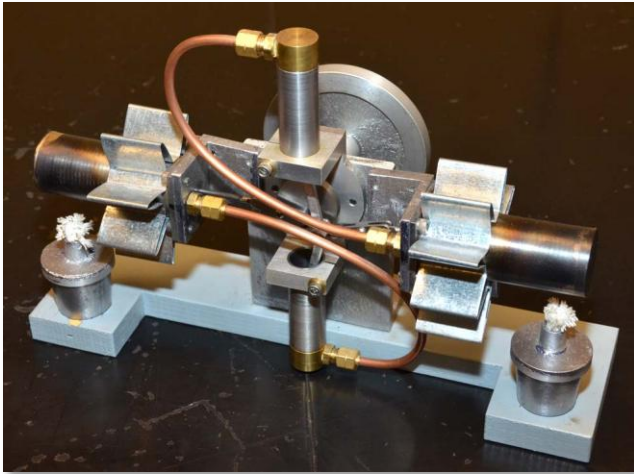
VISITORS: Jack Gillespie retired from Mare Island and is now a teacher at Vallejo High School. He leads a robotic team and gave us a demonstration of his student's work. It was a very complex device that chucks basketballs with amazing precision. It combines electronics, mechanical drives, and fabrication.



Jason Harris brought in an Atkinson engine and a Stirling engine. He says a Dave Gingery book was the inspiration for the two-cylinder Stirling. He does his own casting and prefers that to working from the solid. Member Anthony Rhodes reminds us that

Lindsay Books is closing operations next February 28 if you are looking for Gingery books (lindsaybks.com).

Following the meeting, Jason ran the Atkinson.



Jason said that his next project will be based on one of the earliest gas engines from the 1885 Deutsch Gas Engine Company.

The engine chosen was based on a visit to the Stuttgart Mercedes-Benz museum. It is the “Grandfather clock engine” also called the “standhuhr”. It’s a vertical single forerunner of the early gas engine used for the first automobile. Jason is working on the castings at present.

He does some of his work at the Tech Shop in San Jose. The Tech shop is \$125/month with about \$60 per class for advanced machine instruction. There is also a Tech Shop in San Francisco at 5th and Howard.

Paul Denham retired from the Lawrence Berkeley National Laboratory and machines at home for pleasure. He has nearly completed a Hoglet as well as several hit and miss, steam, and Stirling engines. He and his late father demonstrated and collected full sized hit and miss engines. Lon Keeth and I will try to bring our Hoglets to the next meeting and hope that Paul will bring his.

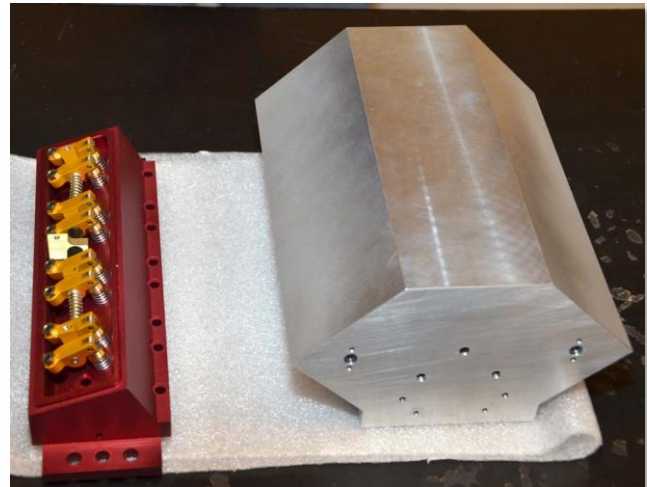
SHOWS: Our Goodguys show was a success. We plan to have a meeting with the Goodguys staff concerning next year’s show.

John Palmer says there are no EDGE & TA shows to report.

The GEARS show, as reported in last month’s newsletter, is scheduled to be discontinued after nine successful years. Pat O’Connor gave us a detailed report. However, there is a rumor that other folks may step in and rescue the show.

BITS AND PIECES

Jim Freel has continued his excellent work on the heads for his Black Widow. The valves, guides, and rocker arms with shafts are completed and installed. A light bead blasting and anodizing by Santa Clara Plating followed, the result is beautiful.



He then showed us the large billet of 6061 aluminum (8”x 8”x9”) that already looks like a fine engine block. Jim uses a sine bar to set the angle at 45 degrees. He uses a unique method to hold the block by sandwiching the block between two angle plates and “C-clamping” the assembly to the milling machine table. The mill used is a CNC machine, but he uses only the manual controls.

He plans to reference all dimensions off the crankshaft centerline.

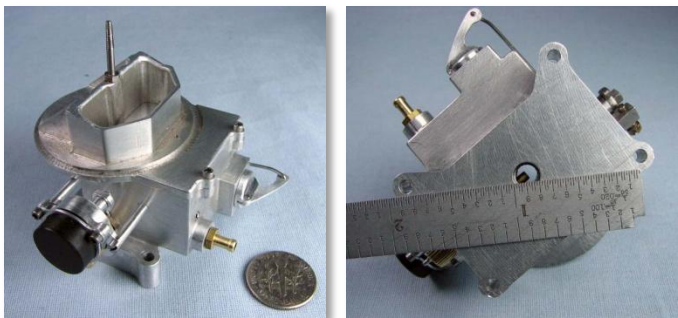
John Gilmore recommended that the front and rear plates are bolted in place before line boring for the cam and crankshaft bearings. Another member suggested that those plates be located with dowel pins.

Jim plans cooling chambers for the engine by relieving small areas around the sleeves using a keyway cutter to gain access.

As an alternative Dwight suggested machining out the sides of the block, then continue to machine out a cavity to surround the sleeves. Following this, the access area can be closed either by welding or epoxying a plate over the access area. A lively discussion followed concerning the merits of an epoxy fix versus welding. Many felt that the danger of thermal warping of the block with welding would be a problem. Finally, it was mentioned that the minimal cooling that Jim proposed would be adequate for display running. We have been running a Challenger “dry” for several years with no problems. Many of our I.C. engines suffer from low temperatures for the short periods required for show running displays.

The bore of the engine can be increased from one inch to an inch plus a sixteenth. Dwight says that the larger bore results in a substantial increase in performance.

Mike Rehmus asked if anyone knew why the Hicks Marine engine had a mystery bump on its camshaft. It is 12 degrees off BDC (192 degrees). The question occasioned a good bit of speculation and no definitive answers.



Some of you have had the privilege of meeting George Britnell at Cabin Fever. He is the builder of a wonderful third scale Ford V-8 in factory blue. He also is a fan of Crank Calls on the Internet. Concerning our Tech Talk on carburetion last month, he writes that he built the Stromberg Replica that Lee Root published in SIC. He had float problems with it and finally settled on a simple air-bleed model airplane type carb. With some changes to the venturi and airbleed ports he came up with a functional carburetor. Retaining those dimensions, he made a replica automotive style carb for his Ford engine. George hopes he can make to the West Coast for our Goodguys show some time in the

future. For a demonstration of his success, see http://www.youtube.com/watch?v=fRVYYtdhG_8

You may have seen his excellent You Tube series on the building of his very nice V-Twin original.

TIPS:

From time to time, members mention a technique that helps them with shop issues. Here’s one from Dwight: when mating gears use a piece of paper to get proper clearance. Anything from cigarette paper to wrapping paper can be used for precise clearance.

For rust removal, automatic transmission fluid and acetone works well. This tip is from Mike Rehmus.

Having trouble removing paper labels? Use Coleman Lantern Fuel. This tip is from Dwight.