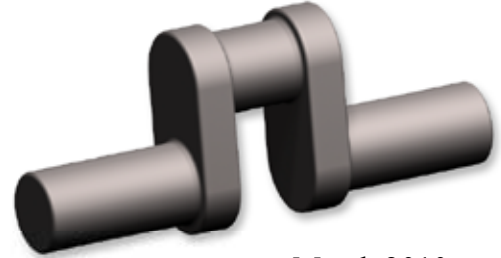


The Crank Calls



March 2010

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MEMBERSHIP

\$25.00 US

Contact

Ken Hurst at
(707) 257-2481

NEXT MEETING

March 20, 2010 at
Chabot College, building 1400
25555 Hesperian Blvd, Hayward 94545
Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

EDGE&TA 50th Anniversary National Show, June 24-27,
Santa Margarita Ranch, CA www.edgeta2010national.com
Sonoma Historic Motorsports Festival, June 5 & 6 @
Infineon Raceway, Sonoma, CA
Annual WEME Show July 10 & 11 Veterans Building,
Vallejo, CA
Good Guys Car Show Aug 27-28-29

**THIS WILL BE YOUR LAST NEWSLETTER IF YOU
HAVE NOT PAID DUES.** Please make checks
payable to "BAEM" and send to:

Ken Hurst
2650 Indiana Street
Napa, CA 94558

MEETING NOTES

Carl Wilson 02-20-2010

Guests at the February meeting included Mike Byrne who saw a picture of John Palmer's J&E Jr. engine, sent John a note and in turn was invited to a meeting of BAEM. Steve Zettler came with Marc Cave, and Ben Tetzner and Randy Martin are students of Don Jones at Chabot College.

Mike Rehmus proposed that the club outsource the design and maintenance of a new club website. Ken Hurst led a discussion on what the club members would like to see in a web site. Later, the board of directors voted to have Ken ask his son, a professional web developer, quote

this project. Ken will report to the BOD and the club members next month.

This year several club members will celebrate the big ones - birthdays with two digits beginning with either 8 or 9, and ending with 0: John Palmer, George Gravatt, and Chris Leggo. We will honor these members at the June meeting. Any one else?? Contact the secretary.

WEME 2010 will feature as its headliner the World's Fastest Indian! This is the streamlined motorcycle that Burt Monroe of New Zealand used to set the world land speed record in the SA 1000 class at Bonneville Salt Flats at 183.586 mph. The WFI is owned by the family of Dean Hensley who has donated the display of this bit of history to the club show. Phil Schack of Suspension Concepts, San Luis Obispo, CA (805-549-8279) has made a production run of models of the WFI and will display and sell them at WEME 2010. Phil's website: http://www.schack.us/about_us.htm. More info on the history of the WFI see:

http://www.vft.org/RouitMuseum/2006Rouit/2006Rouit_Indian.html

Mike Rehmus went to Cabin Fever Expo 2010. 50,000 square feet of display space and over 5000 attendees made this a monster show. Mike said that the weather was wonderful and the show was worth the trip.

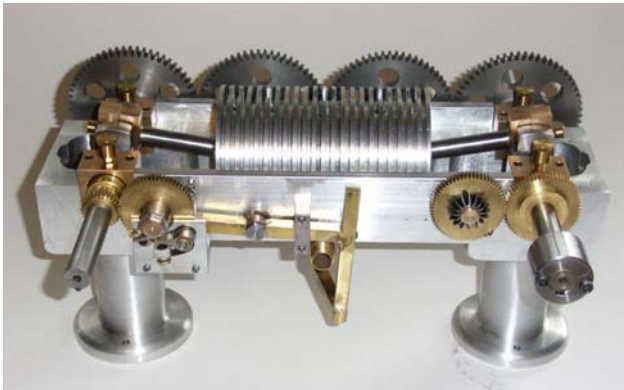
Mike and Steve Jasik talked about the extension of rapid prototyping technology into the home shop. See these webpages for more information:

<http://reprap.org/bin/view/Main/WebHome>

<http://store.makerbot.com/>

BAEM shirts may be available again. See Don Jones for more info.

Bits and Pieces



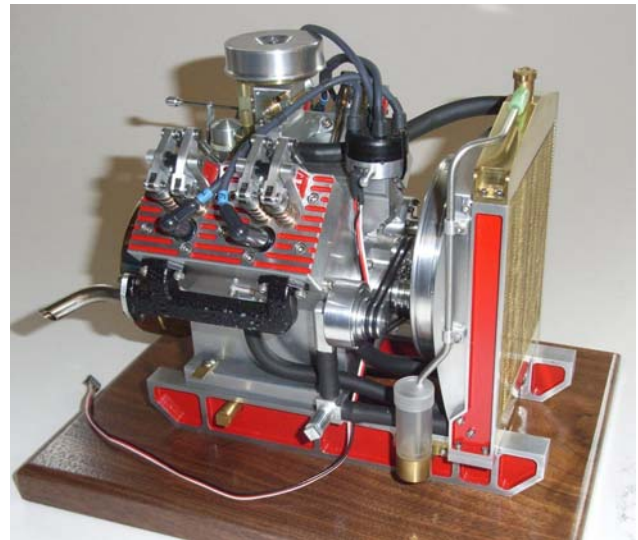
George Gravatt continues to add parts to his opposed piston hit-n-miss engine. He hopes to have the flyball governor for the exhaust valve installed soon and to have first pops for next month. Looking good, George!



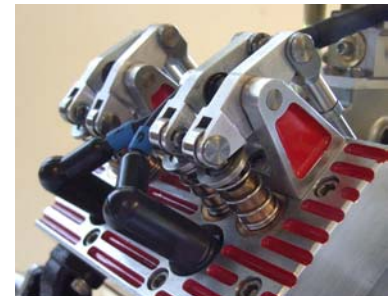
Peter Lawrence doesn't mind doing things the hard way! These are the stator (l) and rotor (r) for a dynamo – that is, a DC motor or generator. The stator is from a slice of thick walled tube and the rotor is from solid bar. The pole pieces in each have been formed by a combination of drilling, milling, and filing.



Tommy Christiansen has finished his first engine: a wobbler made in brass and steel. After a run-in of half an hour it will turn over very nicely on 5 psi air. Congratulations on an excellent job and we are looking forward to your next engine.



This is John Meredith's build of the Jerry Howell V-4. John said that although it was built from bar stock, it was more work than



he expected. The original design used two compression rings and no oil ring: this turned out to be an oil pump. Oil right out the exhaust! John made new pistons with two compression and one oil ring plus an oil pressure adjustment

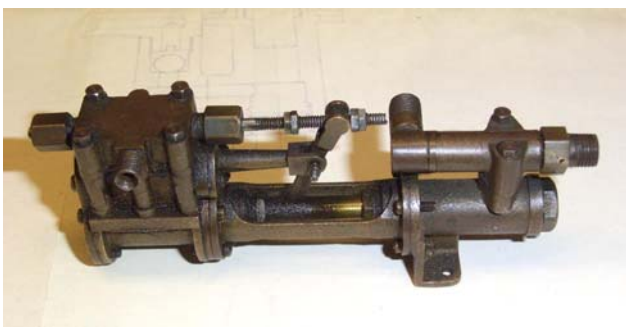
on the oil pump. Problem solved. Jerry's carburetor design used two jets but did not work well. John redesigned it with one jet and mixture control. The radiator is made from bar stock and soldered with solder paint.



Ken Hurst and George Gravatt went to the Winternational Drag Race in Pomona, CA. This is one of the rotors from a 14-71 Roots blower that sheared its drive shaft when the funny car engine exploded at 314 mph. Ken and George visited (and recommend) the National Hot Rod Museum and Randy's Drag Racing Museum.



Roy Anderson made the patterns and the lost wax casting for simplex steam feed pumps in two sizes: 1.5" x 1.5" x 1" and 1" x 1" x 5/8". I'll go out on the proverbial limb and say that those dimensions are steam cylinder bore x pump cylinder bore x stroke.



A shuttle valve (top left) operates a steam valve (middle left) via the lever in the middle. The steam cylinder (bottom left) drives the single acting pump cylinder (right.)



This is Dwight Giles' build of the Upshur farm Engine from plans in Strictly IC magazine. Dwight said that other than some details, it is as originally designed. But the devil is in the details: throttling carburetor, 5 bolt head, counterweighted crankshaft, muffler, gas tank in crankcase, caps on main bearings, and cast flywheels. Looks like it is about ready for First Pop Honors next month.



Anthony Rhodes displayed this very unusual saddle and apron from an Atlas/Craftsman 6" x 18" lathe. The original apron is part of the saddle casting: here it has been cut off, the saddle modified to fit the bed, and a complete new apron built complete with power cross-feed. This has to one of the very few of these lathes with this modification.

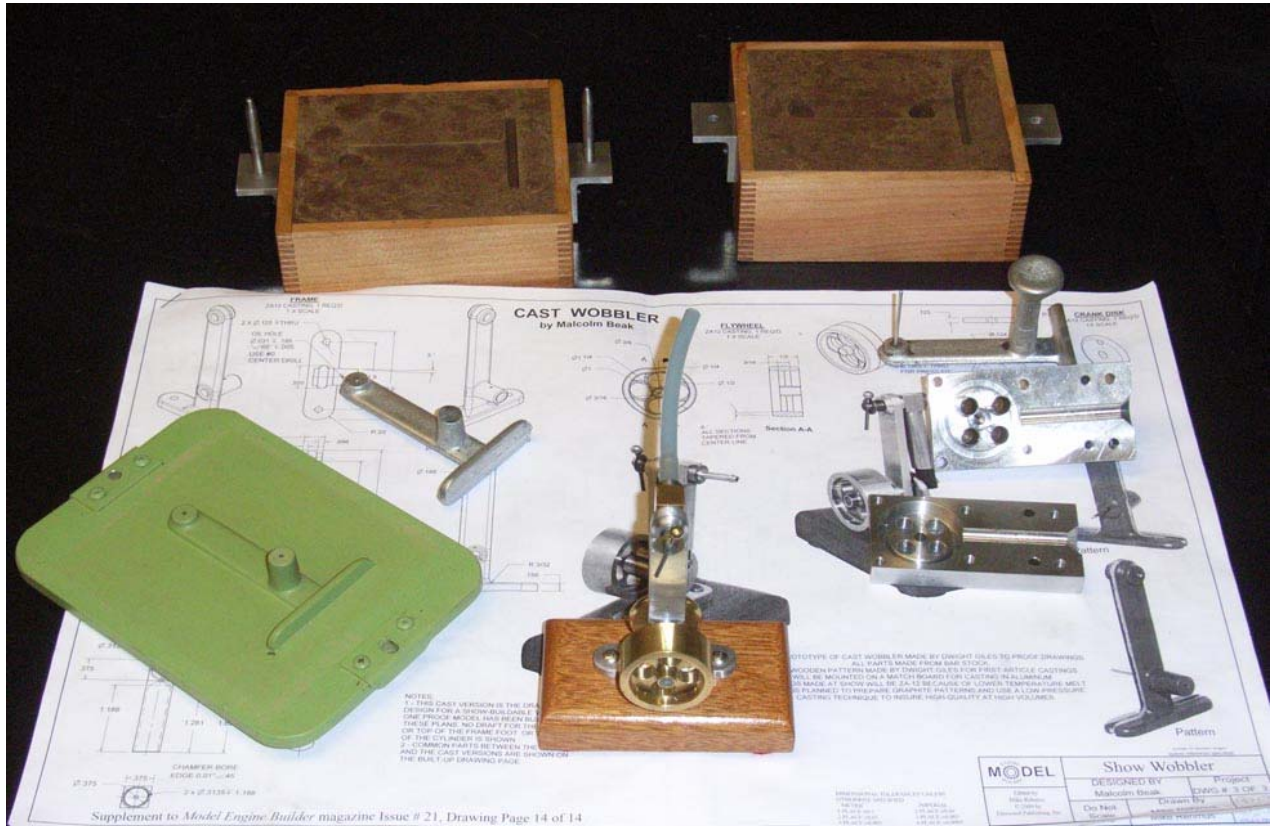


Rick Levesque has completed another in his series of superb steam engines – the “Little Workhorse Engine” by Rudy Kouhoup and featured in the July 2000 Live Steam magazine. Note the unusual cross-head and guides. Rick said that alignment of the engine was a problem: “it is one thing to make parts, making them run together as an engine is something else.” Congratulations Rick on a fabulous job.

John Palmer brought some old tools but unfortunately they were not photographed.

TECH TOPIC

Dwight Giles



The photo above is an overview of the “Show Wobbler” engine commissioned by Mike Rehmus, and designed by Malcolm Beak. Plans and construction notes are in issue #21 of Model Engine Builder. Beginning at the lower left of the photo: the green rectangle is the pattern

board for the frame. The metal piece just above the pattern is a completed casting and above that are the two halves of the flask: drag (left) and cope (right). Continuing around: just below the cope is a casting with its sprue still attached. The next two pieces are a bit hard to see: they

are the two halves of the permanent mold for the flywheel. The shiny half has 4 dark circles: those are core pins to form the holes in the flywheel.



The casting above is “right out of the mold”. It is resting upon the cope (upper) half of a mold made from Petrobond sand rammed up on the pattern board. The molten metal enters the mold through the pouring basin (conical shape that extends the main bearing boss) and runs through the mold. The displaced air exits the mold through a vent hole. The thin rod at the top of the casting shows that the metal was sufficiently fluid to fill the vent hole almost to the top of the mold.

Dwight Giles made the pattern out of 9 ply aircraft plywood. There are no runners on the pattern board: the metal is poured directly into the mold cavity. Note Dwight’s trademark finger joints on the flask (the wood frame which contains the sand during ramming the mold and pouring the metal). Zinc die casting alloy from old locksets and thinwall electrical conduit fittings was melted in a ladle with a torch. Dwight said there was lots of slag to skim off. Zinc alloys are denser than aluminum, are excellent bearing materials, and have good as-cast and machined finishes.



The bar stock version of the show wobbler was built by Mike Rehmus. Malcolm’s design is an “open source.” Mike is inviting model engineers to build one and send him comments on how to do, how to do it better, etc.

For Sale:

I have the following equipment for sale. Ideal for someone starting a shop

- 1) Clarke MIG welding unit, #MIG 100E – MK2 Complete with gas tank, regulator, gloves and face shield. Input 110 v 20 amps; output 28 v 100 amps. Asking \$45.00
- 2) Six inch double ended utility bench grinder with aluminum oxide and silicon carbide wheels. Asking \$30.00
- 3) Bench top drill press multi speed, – like new - \$30.00
- 4) Lathe, 7” swing X 10” bed. Variable speed with inch conversion, change gears, 3” 3-jaw and 3” 4-jaw chucks, quick change tool holder, lever lock tail stock. \$200.00.

Call to see these items or I will bring them to the next meeting. Lew Throop (650) 941-8223.

Corrections

“Mike Stimm” in the February newsletter should have read “Mike Stimmann”

Member Profile - Carmin Adams

by Bob Kradjian



One of our favorite and most faithful members is genial Carmin Adams. His interest in miniature engines stemmed from reading a 1990 article in Home Shop Machinist. His first engine was the Duclos Hit and miss. Other engines steadily followed. They include the large Fairbanks-Morse Horizontal pictured here at the Visalia Show in 2005. This is from a Tom Stewart casting set. Next was the Economy hit and miss built from BAEM member Joe Tochtrop's kit, and another Duclos hit and miss followed (the gearless version). He scratch-built another three-cylinder engine from plans supplied by a local craftsman. All these engines were built with Carmin's attention to detail, fit, and finish.

Nearly completed is a beautiful Rider-Ericsson "Hot Air Pumping" (Stirling) engine. A powder coating mishap has slightly distorted the cylinder and has delayed the project. Also nearly finished is another ambitious project, the

three cylinder Fairbanks-Morse Vertical from a Bob Bromps kit. He showed his kindness and skill by rescuing two engines that I had bought only as display engines. By the time Carmin was through with them, they both ran perfectly and have been featured in our club engine shows.

Carmin filled in the odd moments by restoring and rebuilding a Bridgeport Mill, three lathes, a large surface grinder, and four tractors! His Allis-Chalmers Model B is a beauty that was featured in a book on tractor restoration, and has been on several calendars.

His automotive background is extensive with emphasis on ignition and tuning. He was active for many years in the national Mobil Economy run; a newspaper article from the mid-60's shows him as a happy third-place winner in a Valiant.

Carmin came to the Bay Area from Eastern Colorado with vivid memories of the 1935 Black Sunday resulting from the Dust Bowl natural catastrophe. Other homes were in Coquille, Oregon; as well as Pomona, San Jose, and Fairfield in California.

Carmin served his country in the U.S. Army in the European theater during World War II. His group was among the first to enter the death camps in Germany. A second assignment was to travel to Japan where he worked on the floor of the damaged Mitsubishi factory where the "Zero" was manufactured. A souvenir of that trip is an old Japanese micrometer.

We are fortunate to have the pleasure of Carmin's company as an early BAEM family member, and greatly value his integrity, kindness, the breadth of his knowledge, and his generous and giving spirit.