The Bay Area Engine Modelers Club, Branch 57 of EDGE&TA

The Crank Calls

October 2004

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NEXT MEETING
October 16, 2004 – 10AM
At Robert Schutz's Shop
366 40th St. Oakland, CA

Check out the BAEM Web Site at
www.baemclub.com
Send your project photos to the
Web Master Jim Piazza.
Phone: 408-446-4825
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TO JOIN THIS CLUB
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MAKE CHECK
PAYABLE
TO LEWIS THROOP

Meeting Notes
September 18, 2004
Bob Kradjian, Secretary

President Ken Hurst called the meeting to order at 10:04am.

There was one visitor, Philip Basson, a friend of Oscar Ortiz. Philip is originally from one of my favorite countries, England, and is an expert on classical automobiles. Welcome Philip, we hope you will return.

Lew Throop gave us the treasurer's report. We now have $1364.00. See Lew if you don't have a club badge.

I asked the group for their interest in a Saturday evening dinner in the hotel while we attend the Visalia "Men, Metal & Machines" show October 23.

I believe there is sufficient interest to warrant a report next meeting. I will attempt to find out types of food, possible outside caterers, and cost. Some members felt the hotel food was substandard. I'll get information on menus, and determine if outside catering is a possibility. Remember though, if it's only gourmet food you are seeking---it will probably be best not to leave San Francisco. I think the great company will make almost any meal a memorable one. (See follow-up report below).

Another Visalia notice: Gary Schoenly is willing to pay the hotel tab (two nights) for anyone willing to give two tech topic presentations. Does anyone have some wisdom to share with the public for this nice reward? If so, work it out with Gary at 1-800-789-5068. He's in Pennsylvania. Don't call at midnight!

Special events coordinator, Dick Pretel, brought us up to date on the remaining events. It seems that the San Francisco Model Yacht Club event potentially planned for late October will fall through the cracks. Maybe next year if some details can be worked out.

The GEARS event in Portland is history. More than a half-dozen of our members made the trip, and brought home a lot of awards. Thanks to Mike Rehmus for his excellent report which is included elsewhere in this newsletter.

The Gotelli Speed Shop open house was scheduled for late September. Perhaps Ken Hurst will give us some details on this South San Francisco event during the October meeting.

Visalia, as mentioned above, is October 23 and 24. Be sure to grab your hotel reservations if you want to stay at the convention center hotel. Check cabinfeverexpo.com for details, phone numbers, etc. The meeting rate is $79 per night.

I contacted the Radisson folk to find that they have only a very small room available (for 20 or fewer persons). They said that they could reserve a portion of the restaurant, but the unanimous opinion about the hotel food makes that a less than ideal solution. I will try to bring a list of restaurants within walking distance of the hotel. I believe our best option is to follow our pattern of last year and fan out

to the various nice restaurants available.

Our annual Blackhawk Automobile Museum date is scheduled for November 20. For those who wish to display engines, free museum access is provided.

For next year, we have a tentative invitation to appear at Roy Brizio's open house the Saturday before Mother's Day. This is the best street-rod open house in Northern California.

We will look forward to a report from Pat O'Connor on the tour of the Ryan Falconer racing engine plant in Salinas. The Falconer is 612 cu. in. V-12. These monsters pump out more than 1100 horsepower.

Our thanks to the many members who made the Good-Guy's show a terrific success.

Bits and Pieces

Cor Langewis brought a very nice steam engine that he made in 1991. This is an English (Stuart) kit in 1/8th scale. It is an inverted 90 degree "V" layout. Originally designed as a marine engine, the engine served as a plant power source for 87 years from 1903 to 1990. This engine will start from any piston position.

Tom Armstrong built a generator to connect to an internal combustion engine. This was built from a Dick Williams kit. Tom used the rotor and stator from a Honda. This unit puts out 27 volts of 3-phase AC output.

Ken brought three casting sets for Bob Shore's design of the "Little Devil". The kit involves upper and lower cases, two flywheels, and the drawings. The cost is $85 and, following payment for actual cost, Ken is donating the remaining proceeds to the club. This is a very generous arrangement and we all thank Ken.

Cory Renner walked out of the meeting with one of the newly purchased "Little Devil" casting sets. We all look forward to seeing this engine in progress. Please bring in what every progress you have made, Cory. This applies to all members; please bring in your "works in progress" for the bits and pieces part of our meeting.

I shared an experience with a suspected "carburetion problem" on my Challenger V-8 that actually proved to be an ignition problem. A new ignition module for the Hall-effect breaker cured it. Dick Pretel feels that we need 15-volt systems as our car batteries come in well over the nominal 12 volts (usually around 13.8 volts). He also would like to see a larger, heavier unit from the CH Company with the spark advance curve unit to be added later, if desired. These larger units need two grounds, one of them preferably a larger mesh-type cable. We all hope that Mike Neal has survived the Florida storms with his equipment intact and can continue to develop his fine products.

Again, our thanks to host Robert Schutz for his fine facility and hospitality.

GEARS Show
Mike Rehmus

I attended the GEARs show in Portland last weekend and experienced a very nice show with good attendance and I made a vow to return next year. The experience was very much like the early PRIME shows that we all liked so much in feel and ambiance.

The venue was an Armory located just off the end and to one side of the Portland Airport runways. We had an easy 5 minute drive to a comfortable Marriot Courtyard where most of the out-of-town participants stayed except for several BAEM members who had their mega-coaches parked under the trees in the parking for RVs at the Armory. Portland has a plethora (I always wanted to use that word) of good to great restaurants so we were well-fed as well.

BAEM was represented by six members showing engines: Eugene Corl, Randall Cox, Dario Mecchi, David Palmer, and Richard Remington. David won Best of Show and Dario won Best steam engine. Congratulations to everyone—there was some tough competition.

Exhibitors and Vendors came, in the main, from the Pacific Northwest with a good showing from Canada.

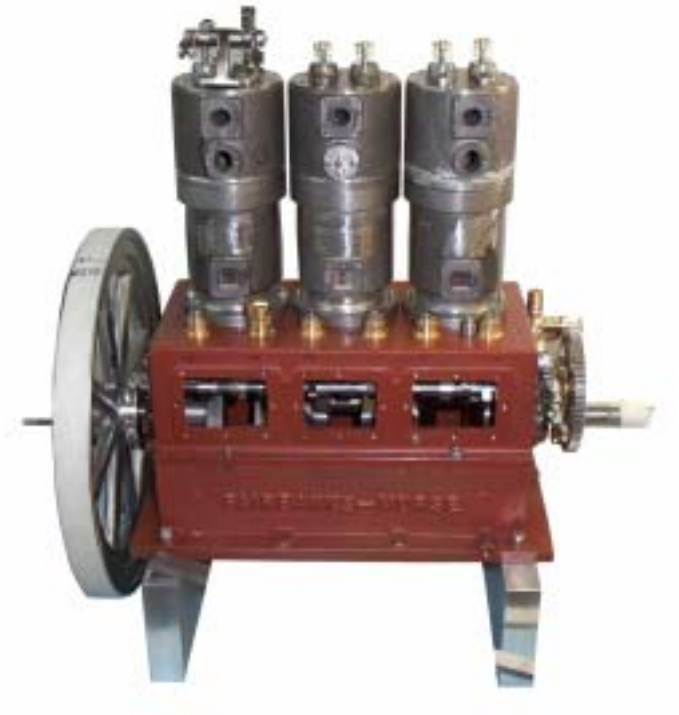
Besides the great modelers and their engines, one display I especially liked was the Bowling Ball Mortar. With a barrel just slightly longer than the diameter of the Bowling Ball, it is said to fire a ball about one mile with 5 ounces of powder. A ball makes about 3 trips before it disintegrates and the finger-holes make very nice whistles during the flight. The videos shown by the builder were very impres-

sive as were his tales of firing his Golf Ball gun. Rubber bands flying everywhere if you gave it a bit too much powder and the velocity peeled the cover off the ball!

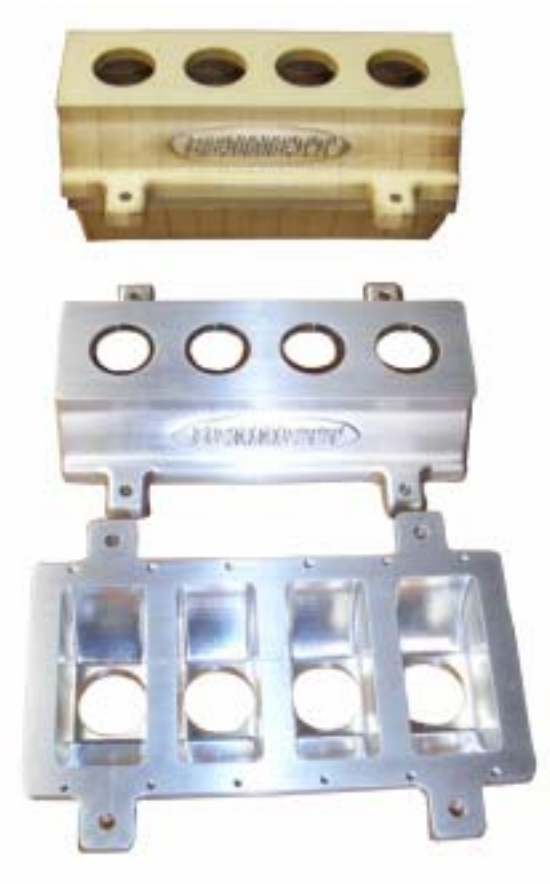
Show attendance was very good and the promoters made their expenses by the end of day on Saturday and by the end of the show, made enough to finance next year as well. Attendance was aided by several nice articles in the local newspaper and people walked in the door who had never heard of the term, Model Engineer. I believe there are several new Model Engineers walking around Portland right now!

I think this show is a keeper.

Mike Rehmus



Carmin Adams' Fairbanks Morse Model R , 3 cylinder, OHV



Karl van Dyk's 4 cylinder billet crank case

Lew Troop's 5 cylinder Kinner radial

Photos by Bill Nickels

TECH TOPIC AT THE OCTOBER MEET

For our October Tech Talk Mr. Cory Renner will give a presentation on anodizing. He will be describing the process he uses and will have some samples to show. Pat O'Connor

Tech Topics
Sept 18, 2004
Carl Wilson

Pat O'Connor and Dick Pretel talked about problems that some of our members have had with electronic ignition systems that are currently available for our engines. To prepare this report, I talked with them after the meeting and have included additional information. I have omitted reference to specific vendors and models for reasons given below. First, a little background.

Automotive engines have used the Kettering ignition system, named for its inventor Charles Kettering, since the 1920's. It is the battery, points and coil system that most of us have worked on. One of the regular maintenance tasks was to replace the points and adjust the gap or dwell. Remember those days, don't we. The points wore out because they switched on and off all of the current in the primary of the ignition coil, and the resulting heat and arcing eroded the point material away. Electronic ignition systems eliminate this problem by using a solid state device to switch the current to the coil. The points only carry the very low current necessary to trigger the electronic switch. Or the points can be eliminated entirely by using Hall effect sensors to generate the input signals for the electronic switch.

Several vendors supply electronic ignitions for our engines. They are derived from systems that were originally designed for single and twin cylinder model aircraft engines.. They operated from small batteries and used 3 volt ignition coils. These units are satisfactory for our small engines, but some of our members have burned out these systems in the higher compression 4 and 8 cylinder engines. The problem is that they are not designed for the current and voltage necessary for reliable ignition of the larger engines. Connecting 6 or 12 volt batteries and motorcycle or car coils lets out all of that magic smoke. Dick Pretel reports that several of the vendors are working on ignition systems that will operate on 15 volts and will power the larger coils.

Pat had problems with his Wall 4: it would accelerate up to about 6000 rpm and then die. As the throttle is opened, more air and gas is admitted to the cylinder and the pressure at the end of the compression stroke increases. More voltage is required to ignite this denser charge. At some rpm the required voltage is greater than that delivered by the ignition coil and the engine stumbles or dies. His ignition system used a model airplane coil that put out 14,500 volts. Using higher voltage coils overloads the electronic ignition systems and burns them out.

Bourke Engine
Pat O'Connor

Comments by Robert Washburn coordinated with John Swartzwelder owner of this Russell Bourke miniature engine:

This is an opposed twin cylinder, glow engine with a Scotch yoke connecting rod. The crankcase is a casting. It is six (6) inches wide from glow plug tip to glow plug tip. The engine displacement appears to be about 0.45 or 0.60 cid. It is not known whether Bourke was thinking of producing miniature engines.

The uniqueness of the Bourke engine is: While the carburetor is sitting atop the crankcase, the fuel/air charge never reaches the crankcase (the case is an oil-sump to lubricate the inner moving parts). Instead, there is a bypass from the carburetor opening obliquely going sideways and down, left and right, to the combustion chambers where, in engine operation, in turn, charges each cylinder.

After Bourke's death, Lew Ross (of Ross engines fame) bought from Bourke's widow, all rights, patents and existing parts and materials. Some of the parts were of a miniature version of the opposed twin.

At the same time, Lou Ross was building a 6-cylinder, horizontally opposed Ross engine for John's Ross collection. John relates, he asked Lou one day on the phone, "When you were a boy, what was the engine you wanted most?" "A Forester," was Lou's reply. John had three in his collection. To show his appreciation to Lou for his building the 6-cylinder for him; John sent one of the Forester engines to Lou. In return, Ross was in such awe of what John had done for him; he dug out parts of a miniature Bourke engine, assembled them and sent this engine to John Swartzwelder of Renton, Washington, to enhance his many-faceted engine collection.

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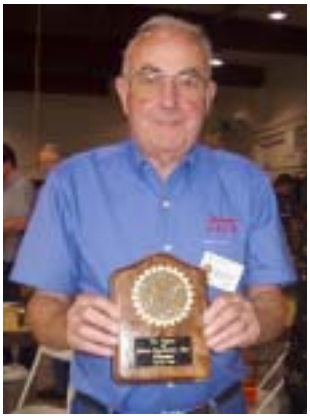
GEARS – GAS ENGINE ANTIQUE REPRODUCTION SHOW
By Karen & David Palmer

Dave & I thought BAEM members might be interested in some notes I took at the Portland GEARS show, which was really great. The group putting on the show was quite organized. Upon arrival, we each received an information packet & were taken by either Karl Smith or one of his many volunteers to our assigned tables. It just so happened that the three of us BAEM members were at one location together (Palmers, Dario Mecchi, & Dick Remington).Eugene Corl was across the aisle from us with his tables. Air was available for those of us who needed it, & the pipes for the air were all hidden under the tables (there were no air pipes cluttering up the table tops). If anyone needed help with moving models or anything, there was a volunteer in an orange vest ready to assist. Attendance at the show was fabulous, especially on Saturday. The exhibit room was bustling with people. And there was a quilt display down the hallway for the ladies, or anyone interested in quilting. Now for the best part---Dario Mecchi won in the "Steam" Category, and my husband David won "Best of Show"! All winners were presented on Saturday afternoon with wooden plaques. It was very nicely done!

Photos and text by Karen & David Palmer



Dario Mecchi won
"Best Steam Engine"

David Palmer won
"Best of Show"

Continued from Page 4 Bourke Engine

These photos were taken by Robert Washburn. Bob and John have reached an accord whereby Bob will tear the engine apart and make detailed CAD drawings. John will offer the drawing package for sale when the drawings are finished.

Upcoming 2004 Club Events

By Dick Pretel, Events Coordinator

Blackhawk Automotive Museum, November 20.

West Coast Engine Exhibitions For 2004

2nd Annual Men, Metal, & Machines! Visalia Conventions Center. Visalia, CA
October 23 & 24, 2004. Phone: 1-800-789-5068.
Web Site: www.cabinfeverexpo.com/MMM

East Coast Engine Exhibitions For 2004 and 2005

Cabin Fever Expo in York, PA. York Fairgrounds Expo Center
January 15th & 16th, 2005. Auction January 14th 2005
Web Site: www.cabinfeverexpo.com/CFE

FOR SALE
Grizzly G1005 Mill-Drill $650
Contact Jim Piazza 408-446-4825
Email: jpiazza@ix.netcom.com

FOR SALE
Enco x/y table. It has SS 10 pitch lead screws with Tercite nuts, exelt cond., $40.
Call Lewis Throop at (650)941-8223

September 2004 news letter correction on Page 2, left side, column 1, paragraph 2.

Dwright Giles showed his very nice Wall Four with an dowder (change to a powder) coated block.