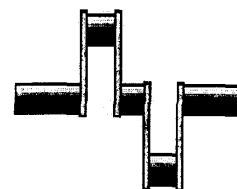


# The Crank Calls

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

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March 2001

www.baemclub.com

## NEXT MEETING

Mar 16, 2001

AT 8 PM

AT

Robert Schutz's SHOP

366 40th St.

Oakland, CA



Don't forget to set your autopilots, GPS and homing pigeons for the new meeting address. See map.

BAEM MEETING NOTES

February, 2001

President Peter Brooks called the meeting to order at 8:00 pm.

The first speaker was Paul Bennett who started with: "The time has come to speak of many things; of ships, and shoes, and sealing wax, of cabbages and kings."

Indeed, it was time to talk. Our beloved host, Paul has lost his lease on what has been our very happy home since November of 1994!

Our next meeting **MUST** be held elsewhere.

As expected, our attention was riveted and a lively discussion followed. Numerous suggestions for a meeting place were offered. They included: the Hiller Aircraft museum at the San Carlos airport, the Hewlett-Packard meeting room in Santa Clara, the Western Aerospace Museum at the old Oakland airport, and even member's homes.

However, an extremely kind and generous offer came from Robert Schutz. He quietly offered the use of his (no lease here) facility, which is located in Oakland. I had the opportunity to visit Robert's business place a week later and find it to be wonderfully suited for BAEM meetings. A spacious (88 by 77 feet!) room with excellent light, heat, table space, kitchen, bathroom facilities and is handicap accessible. Parking on 40<sup>th</sup> street is not a problem. Paul Bennett once again showed his benevolence and donated his chairs, which Robert Schutz offered to transport North to his Oakland space.

It is apparent that there is no "perfect" geographic location for our meeting place. With members scattered about the Bay Area, there will be, of necessity, a long drive for some. I urge members to withhold judgement, attend the meeting in March, and continue to explore other possibilities.

I am very impressed with both the space and the wonderful offer originating with Robert. His restored Moriseiki lathe and Bridgeport milling machine will also impress you.

By my reckoning we have met over 70 times at Paul's Cobra Shop. This is a remarkable record of devotion and support to BAEM and our wonderful hobby by Paul. You may be sure that there were many times that he would have chosen to do other things on a meeting night. All we can say is a very sincere **THANK YOU, PAUL!**

Visitors included Walt Cronk, a machinist from the University of California at Berkeley and Aimee Van Dyk. Aimee is only one month old and has not, yet, started with machining but sure is cute. Welcome to both.

Lew Throop reports \$1500 in our treasury before paying our dues and insurance to EDGE and TA. If anyone would like an EDGE and TA membership card, see Lew.

The South West Regional meeting (**California Antique Farm Equipment Show**) will take place **April 21-22 in Tulare**. Call (559) 688-1030 for information.

#### FIRST POPS:

Dwight Giles said that his new Silver Bullet did just that; it "popped" but it didn't run. Rest assured that it will run just fine when Dwight is finished.

#### BITS AND PIECES:

The above mentioned Giles Silver Bullet features a very nice radiator which was literally cut down from an auto heater radiator core. His gas tank is lovely with hidden seams and made from 0.030" brass. The brass was formed over hardwood bucks and the end plates silver soldered. The fittings were then soft soldered to avoid melting the previously fashioned joints. Very nice finish on the entire engine as we have come to expect from Dwight.

Ken Hurst brought his Silver Bullet. It features a 180-degree lobe split on the camshaft. He added 0.060" to the piston top for a little more compression. He also redesigned the distributor assembly. It's a great runner.

The final Silver Bullet in our group has yet to be fired. This is Roger Butzen's elegant example. The picture was published in our last Crank Calls. It features a handsome brass shroud over the starter belt, a nicely done radiator and shroud, and a throttle incorporated into a tiny accelerator pedal.

Red Garlough and John Vlavianos brought their '32 Ford roadster project. The V-8 "60" is from Replica Engines and Wally Warner there has assisted with an on-board starter that operates on a flywheel ring gear, no less. The differential, front suspension, headers, disc breaks, and shocks are completed. The famous '32 radiator shell is cast by John from aluminum. The body and rubber tires are next. This is an ambitious project, congratulations to members Red and John.

Dick Pretel's unique F-head Wall four is nearing completion. His oil pump pushes out over 100 pounds per square inch in pressure. A relief valve is in the works and Dick is sizing out springs. Prediction: this engine, or Dick's Challenger, will be a first place automotive winner at PRIME at a future meeting.

Speaking of automotive winners, Steve Meyer showed his Phil Sims built "Whatzit." This engine was designed and published by Phil Duclos. For new members, Phil was a much-loved BAEM member who passed away over a year ago. There were problems with the piston rings and the needle valve that were corrected by Steve. The unusual design is an oscillating engine with an atmospheric intake valve and a single flyweight on the governor.

John Meredith brought in a very nicely machined Wall "Wizard." This is a flat twin, air-cooled. The building process took over a year and was the fulfillment of a long-held ambition. He had seen a magazine article on building the "Wizard" as a boy. The engine runs well on a 22-inch, 6 inch pitch, propeller. Of interest is his purchase of piston rings from the English supplier, Wok.

Rudy Pretti brought in a very unusual piece. This was a Jerry Howell designed Sterling engine. Howell, who is easily found on the Internet, sells the plans for twenty dollars. For eighteen dollars more he provides the hard to find materials and bearings for the building project. Rudy's wife loves the engine because it is clean, quiet, and *very* pretty. Rudy substituted a lot of brass for aluminum for the cosmetics. It uses a Delrin crank pin, a carbon-graphite piston, and a urethane foam displacer piston. It runs for an hour when placed on very hot cup of coffee. It will run backwards on an ice cube!

The final piece is probably the most unusual that has been shown to our BAEM group. It was an **ORIGINAL** cast iron cylinder from a 1903 Wright Brothers engine! This was horizontal model B. John is machin

ing 14 of these cylinders and brought a finished sample. He uses a solid bar of cast iron (Durabar) which

starts out as 47 pounds and finishes as 7 pounds. Will one of John's cylinders take to the air in the centennial year (2003) of the Wright brother's flight? Stay tuned, campers, no other details available. What a feeling to handle something used by Orville and Wilbur!

Carl Wilson proceeded to the Tech Topic: "Rust Removal in the Home Shop." See Scott's report for details. I learned a lot, thanks Carl.

### IMPORTANT

For next meeting, bring the fixtures (or drawings of any fixtures) that you have used to machine a crankshaft and whatever cranks you may have available. We'll have a lively time discussing this topic that is at the heart of internal combustion engine building.

See you at Robert Schutz's shop in Oakland on the 16th. His place is not far from the Kaiser Hospital tower at Broadway and MacArthur. Park on 40<sup>th</sup> Street. 40<sup>th</sup> street parallels MacArthur. If one should wish to take BART, it is seven blocks from the MacArthur station. **Do not miss this meeting!** You will be amazed at the quality of the meeting place and Robert's generosity in offering it.

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## TECH TOPICS

BY  
SCOTT OVERSTREET

Last month, Carl Wilson presented one of his specialty topics - "Rust Removal In the Home Shop." This subject was apparently just the ticket for many of us; we had a large turnout and the questions and contributions from the audience, during Carl's talk, were plentiful and at a high technical level. I didn't know we had so many "rusty iron" hobbyists in our bunch. Carl showed a piece of cast iron that had been immersed half way into his "electrochemical" rust removal system - we were all very impressed - grease, paint and rust removal in one shot. Carl tells me that if there is interest, he will draw up a basic design for the power supply required to operate his rust removal system. He also tells me that adding some trisodium phosphate (TSP) to his handout "electrolyte" brew might help a bit with grease penetration. Thanks Carl.

Our "Tech Topics" presenter for our March meeting will be Ken Hurst. Ken is going to head up a session on the art of making crankshafts. So, bring what you have that isn't in an engine, i.e. crankshafts and also the jigs and fixtures (if any) that you used to make them and/or lots of questions. Ken will bring his loose crankshaft and jig assortment, and we will have a show and tell forum; the object being to get us beginners in the group started off right - to get us past the "learning the hard way" traps that I'm told are easy to fall into. We will focus on basic crankshaft designs, best metals to use, machining and finishing methods, a bit on bearings, and I'm sure much more.



**For Sale**  
**Lewis Vert. Mill Bridgeport copy**  
**Vari Speed 3 Phase**  
**DRO and 6" Vise**  
**\$2500.00**  
**Paul Bennett**  
**510-782-0705**

**Chance of a Lifetime**  
Roger Slocum will be making a limited supply of fully ground crankshafts. They will be for the Wall 50 cc, Challenger V-8 and Holt engines. Material will be 1410 ss heat treated to 46 RC. Tensile strength 205,000 psi Vs 220,000 psi for 4340. Wall crank journals can be ground to fit Dave McMillian rods. Call Roger for prices at 408-866-6243 for prices. Call Paul Bennett at 510-782-0705 for rods.



# Sparks

From the Editor



## ON THE UP STROKE:

We have been invited again to the Palo Alto Conkurs. This will be the last weekend in June. More on this later.

I will be meeting with North West of the Hiller Aviation Museum on Sat. I will have more at the up and coming meeting.

We won't see any vampires at the meetings with all the Wall "Silver Bullets" being built.

## ON THE DOWN STROKE:

In the immortal words of Robert Allen, "Dues is due". Let's get those late dues in so I don't have to change the newsletter roster. This is the cutoff month for receiving the newsletter.



Dwight Giles  
Wall "Silver Bullet"



Ken Hurst  
Wall "Silver Bullet"



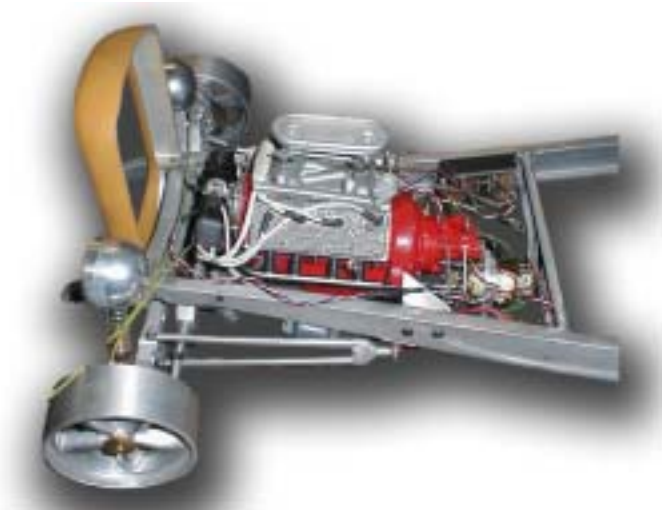
Pat O'Connor  
Borke



Below: Red Garlough and John Vlavianos  
'32 Ford Project



Red Garlough and John Vlavianos  
'32 Ford Project



Steve Meyer  
Phil Duclos "Whatzit"



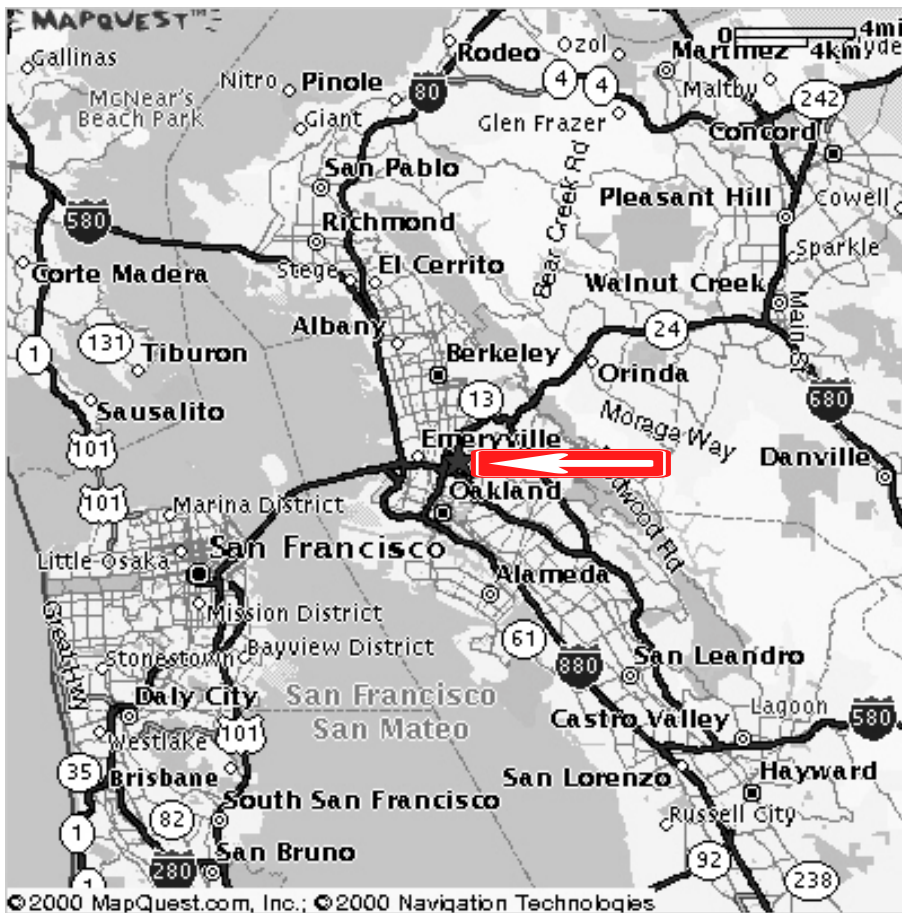
Left: Dick Pretel  
"F" Head Wall four  
Below: John Meredith Wall "Wizard"



Left: Rudy Pretti  
Jerry Howell Stirling  
Right: John  
Palmer Wright  
Cylinders.







Next BAEM meeting place.

A large warehouse door is the entrance at 366 40th St., the door will be open.  
Look for the BAEM Banner.

Lots of street parking on 40th St., also we are 7 blocks from McArthur Bart station.

