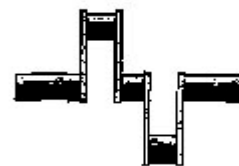


# The Crank Calls

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

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**July 2002**

[www.baemclub.com](http://www.baemclub.com)

**NEXT MEETING  
20 July, 2002  
AT 10 AM**

**AT  
Robert Schutz's SHOP  
366 40th St.  
Oakland, CA**



Cole Power Model has been sold to Martin Becker.

Cole Power Model  
5539 Riverton Ave.  
North Hollywood Ca. 91601  
1-818-762-0272  
[Colespowermodels.com](http://Colespowermodels.com)

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## Meeting Notes

June 15, 2002

Bob Kradjian, Secretary

Felix Mendelssohn wrote several beautiful "Songs Without Words" over a hundred and fifty years ago, but the Bay Area Engine Modelers has had several beautiful "meeting without words." The latest of these was in June.

What a great time! Nothing but engines running and people talking—about engines for the most part. No official meeting, no motions, "firsting, or seconding". Just, fun—and that's what our hobby is about.

There was even some selling of machine tools, measuring instruments, casting sets, and other goodies.

A notable engine newcomer was the finished "Sea Lion" that Irv Stevenson has been working on for some time. It is finished, and has been popping, but has some high-tension ignition leakage. This is not a major problem, and all should be sorted out soon. You may recall the fine, die-molded distributor cap that Irv showed us in December. This cap has the high-tension leads coming off horizontally instead of vertically, thus saving space. Maybe a short commercial run of these caps, Irv? I hear by the rumor mill that Irv may be doing a cap for one of Dick Pretel's beautiful creations.

Robert Schutz had his pretty, green Upshur Farm engine popping away.

Eugene Corl showed us the latest progress on his amazing cast-iron, small block, 1/3 scale Chevy.

George Gravatt had his reliable J and E Jr. popping away. Take a good look at this engine next chance you have. It has all sorts of goodies that George grafted onto John's original design including a fuel pump and a visible fuel gauge. This engine tips over the scales at 100 pound plus if you're thinking about making one.

Report on the Palo Alto Concours d'Elegance.

Another successful outing by the engine show crew. It also marked the initial use of our two new tent-awnings that President Ken Hurst tracked down. The funds came from the club treasury and a small surplus from the coffee fund. These sturdy tents worked perfectly and should serve us for years. Now we are self-sufficient and don't have to depend on the organizers of the shows. Exhibiting engines were members: Adams with his gearless hit and miss and his nice, large hit and miss. Dick Pretel with his Wall Four and his Challenger. Ken Hurst had his two Silver Bullets, a Tochtrop Economy, a Wall Four, and his now smokeless Challenger.

Just an aside—— why is the Challenger smokeless? Because of Dwight Gile's new oil control rings, that's why. They work perfectly. The Challenger, which formerly functioned nicely as a mosquito-control device, now pleases both the mosquitoes and the observers.

George Gravatt brought the hundred-pounder mentioned above as well as Home Shop Machinist Bottle Engine, his Atkins Cycle Engine, and his Upshur farm engine. The Atkins is a very unusual device that is a two-cycle at the flywheel, but a four-cycle at the piston. Confused? Ask George.

Pat O'Connor brought his nice Scotch-yoke Bourne twin. Lew Throop had his Colonna Offenhauser.

Eugene Corl impressed the car crowd with his progress on the cast-iron small block Chevy. Dropping by to say hello was member—John Garis.

I had a Seal Minor, Sea Lion, Harley-Davidson "Knucklehead," and my newly acquired Dinky Deere. (John Deere, model E, 30% scale).

I counted 24 BAEM engines, most of them runners. As usual, we generated a great deal of interest and many compliments on the exhibit. Several of the attendees expressed a desire to meet with us. They will be welcome.

We have been invited to display engines again at the "Wooden Boats On Parade, III." This will necessitate holding our October 19 meeting at Spreckels Lake in Golden Gate Park. Think this over and make your wishes known to President Ken at the July meeting. It will kick off earlier, 9:30am. These folks really appreciate us and Event Coordinator, Ken Valk, has promised us a prime lakeside location with easy download access and tables. If you are undecided, consider that you will view the work of some of the best model boating craftsmen in the country. The remarkable San Francisco Model Yacht Club is 104 years old and has one the finest model boating facilities in the world. Our BAEM tradition of engine shows was partially initiated at the Centennial celebration of their club in 1998 with our second showing. Check out the show website at [sfmyc.org](http://sfmyc.org) and click on "wooden boats."

If you have news about your special project and would like the rest of the members to know about, give me a call and we'll write it up.



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## TECH TOPICS

BY  
SCOTT OVERSTREET

No Tech Topics as such last month because of our annual June engine social, but just the same, a lot of technical interchange took place around most of the engines shown.

Alfonso's two cylinder "flame sucker" caught my attention. Usually, engines of this type just barely run and, at that, require a micro finished carbon/graphite piston running dry in a precision super honed cylinder. Lubricate the cylinder with even the lightest oil and they won't run because of too much drag. What did Alfonso do differently? – His engine ran with authority and, in fact, it would get serious and put out useful power when

loaded, and lubrication didn't phase it. I questioned Alfonso and got the answer. He added a spring loaded back pressure relief valve or call it an exhaust valve to dump the remaining volume of cooled gas (at the end of the vacuum power stroke) to the side rather than blowing it out through the flame, which is the usual practice. In more words, his two valve approach allows timing the flame valve (intake valve) for maximum volumetric efficiency and at the same time eliminates the disturbance and cooling of the flame by the exhaust gases which would reduce the heat energy available to the engine.

I got to thinking more about Alfonso's engine. It seems to me that in comparison to an IC engine, Alfonso's flame sucker engine does just about everything oppositely which I guess isn't too surprising since it runs below atmospheric rather than above. For example, in an IC engine, heat loss to the cooling system is an efficiency loss, but in Al's engine, its this loss that makes it run. Another comparison, simple IC engines can be built with an "atmospheric" intake valve and an operated exhaust valve; Al's engine is just the reverse, an operated intake valve and an atmospheric exhaust valve. And in the IC engine the fire (so to speak) is intermittent and is scaled for how much power you want. The fire in Al's engine is continuous and isn't scalable but I suppose the hot gas product of the fire could be mixed with air to provide throttling – hey this sounds like the equivalent of a carburetor. And the comparison can be taken farther — too bad not to the point of Al's engine making fuel rather than consuming it however. Anyway, of the few flame suckers that I've played with, Alfonso's is far and away the best running and strongest. — Very impressive Alfonso and many thanks.

Now; July Tech Topics – Dick Pretel and Ken Hurst are going to lead a forum on valves and valve springs, in particular, and cam profiles and timing too as necessary adjuncts. Their opening remarks are bound to be very interesting as these two very successful and prolific engine builders have each told me that they differ from each other in some basic design and fabrication details. The plan is that after the speakers set the stage, the forum will settle down into a Q, A and D (where D stands for discussion) on these subjects and whatever else develops.

So, if you have valve gear problems and/or questions, this session is for you. See you there. Oh, I have an update from the enEco engine people. Jim has completed the gibs and cam cases for a 2 cyl. and a 6 cyl. engine. Gio has bought some Chinese scooters, and their plan is to re-engine one and have it running in October. — They are planning on a demo run at our November meeting or our Christmas party in December.

Scott



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## Roster Corrections

Robert Allen email address: [rall9@prodigy.net](mailto:rall9@prodigy.net). Phone: 650-754-0597

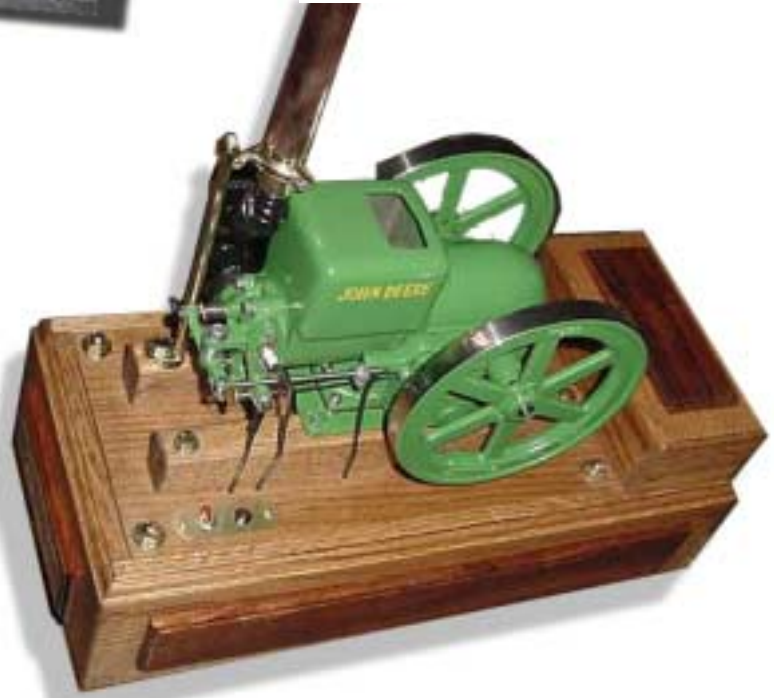
William Nickels email: [whnickels@aol.com](mailto:whnickels@aol.com)



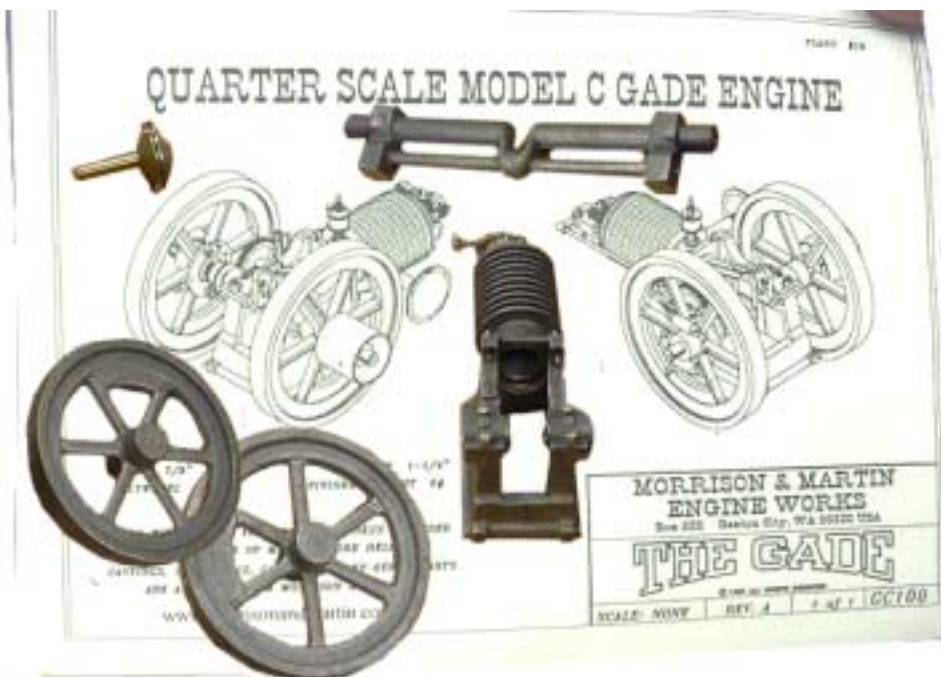
V-8 block, head and blower housing.



Blower housings.



Bob Kradjian's Dinky Deere.



Larry Pezzolo's Gade Model C.



Eugene Corl's 1/3 scale oil pump.



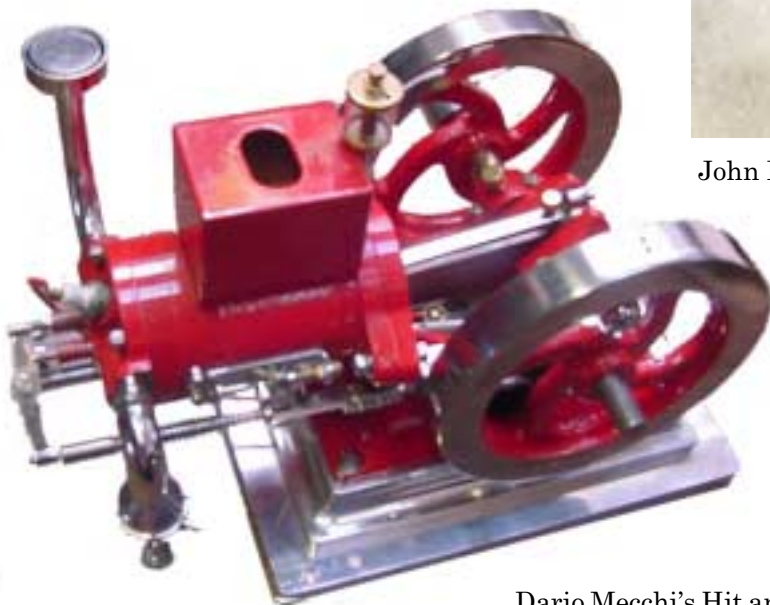
Members admiring a partial display of engines.



Bob Shore Eagle Kit.



John Palmer's J & E Jr.



Dario Mecchi's Hit and Miss.



Dwight Giles Improved Upshur Farm engine.



Steve Myer's Hit and Miss project.



Dwight Giles Pup.



Irv Stevenson's Sea Lion.