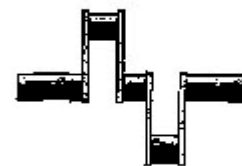


The Crank Calls

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

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May 2002
www.baemclub.com

NEXT MEETING
18 May, 2002
AT 10 AM
AT
Robert Schutz's SHOP
366 40th St.
Oakland, CA



You don't want to miss this meeting. Steve Jasik and Scott lined up what should be a very interesting Tech Topics by two inventors of an intriguing engine design. Thanks Scott for all your efforts on Tech Topics past and present. The club needs donations for this months raffle. The cabanas will cost approximately \$400. Next issue of Crank Calls will have the new roster of club members. If you have any changes please get them to me. ED.

Meeting Notes April 20, 2002
Bob Kradjian, Secretary

Meeting called to order by President Ken Hurst at 10:12 am. The delay was attributed to the enthusiastic response to several V-8's lustily running, and a similarly lusty response from host Robert Schutz's smoke detector. The 44 attendees quieted down, and we welcomed visitors Ben Helprin, Warren Galliano, and John Taylor. More about John in "Bits and Pieces." There were no first pops this month, BUT there was a first "toot and hiss." Whazzat? Well, it seems that Rick Levesque has created an absolutely beautiful, brass steam whistle. This gleaming device is huge and features four tones or chimes. Rick is in the process of tuning the chimes. Bring earmuffs when he finishes it.

Bits and Pieces:

The show and tell table was filled with no less than SEVEN V-8s. In addition, Ken Hurst showed three nicely done Chevrolet V-8 camshafts with various lift, dwell, and duration values.

Visitor John Taylor showed us a steam engine that he built from bar stock 18 years ago.

Oscar Ortiz brought in an interpolator. This nicely made device scissors back and forth to allow for quick and accurate spacing of rivet holes, etc.

Lew Throop brought his neat little Eric Whittle V-8. With a bore and stroke of 0.4 inches, this is the smallest V-8 you're likely to see. Those of us who have seen Eric run his V-8 at PRIME were amazed at how he screams that little engine.

John Vlavianos has cast cylinder head blanks for the overhead valve V-8's that are in construction by several club members.

Dick Pretel showed, and ran, his stunning Challenger. This is possibly the most nicely finished Challenger around. The main competition would be from Paul Knapp's engine. Dick is slowly solving the carburetion problems that seem to be part of the "Challenger challenge". This engine is replete with all sorts of innovations.

These include multiple oil pumps, concealed radiator and cooling fan in the base, electronic ignition, multiple Zama carburetors with progressive linkage, and a Roger Slocum camshaft.

Alphonse Vassallo brought a tiny and very neat two cylinder oscillating steam engine. It has a 1/4" bore, is self-starting, has its own tiny boiler, and runs great! As with all of Al's engines, it is an original and very ingenious design.

Eugene Corl brought us up to date on his historic 1/3 scale, cast-iron, small block Chevy project. It now has new heads, a smaller bore (now 1.25", formerly 1.5"), and is awaiting new castings for the oil pump. Eugene is slowly and steadily finishing this ambitious and historic project.

Dean Andrus showed us an ingenious method of turning wood or brass ornaments. This was published as a feature article, the "Inside-Out Brass Christmas Ornament" in Woodturning magazine. Four pieces of wood or brass are glued or soldered, and the inside turned. All is disassembled and reassembled "inside-out." The outside is then turned. Trust me, it works. You have to see the diagrams to get the whole picture. Very clever Dean, and congratulations on the published article.

Oscar Ortiz has officially retired, but still does consulting work and machining for a medical company. In this capacity he has the need to secure and machine fragile work pieces. His angle plate and parallel clamp system succeeds in doing this.

I showed my old Challenger that now sports a Paul Knapp designed intake manifold for two of the small-bore Walbro carburetors (1/4-inch throat). It also now has a 12-volt fuel pump that produces the 1 to 3 pounds per square inch that the Walbros seem to like. It runs fairly well with an excellent idle, but poor mid-range transition. The top end is just OK. A lot of development is in order. Knapp feels that I should insert two restriction discs to sleeve the throats down to 3/16th inch. My old Conley V-8 was displayed to add to the V-8s along with a V-8, four-cam, Schillings.

Here's a brief report on the 2002 NAMES show in Detroit. They moved to a new venue, nearly twice the size of the old Yack Arena. Only three BAEM members were there: Bill Chernoff and Miquel de Rancogne in addition to your secretary. The engine display was quite similar to the engines shown in the excellent Cabin Fever tape that Mike Rehms is vending. Buy one of his videos and save the airfare. The Roll-Royce Merlin was there and ran fairly well, but still needs a lot of development. A very ambitious work. Miguel literally walked off with a finished "Dinky Deere" Model E purchased from Jerry Frisbie in Oregon. He managed to stuff it into a shoulder bag and despite a little hassle with the security folk at the Detroit flughaven, got it back to Paris intact. I also got one, it just arrived by UPS, and it runs great. I am told that member Tom Armstrong also built one of these. It's a classic hit and miss engine and Frisbie is an absolute perfectionist with castings and manuals that are the best I've seen. Following the NAMES show, I visited the Fine Art Models warehouse in Birmingham, Michigan. Owner Gary Koh gave me the run of the place and I made a video that I hope to transfer to DVD later this year and share with the group at a meeting. He has some of the most remarkable auto, aircraft, train, and motor-cycle miniatures on the planet.

Tech Topics: Lew Throop gave a fine talk on the subject of building your own spark plugs. Scott Overstreet will detail this. I noted while surfing the Internet that a certain Edmond Berger made the first spark plug in February of 1839!

The Hillsborough Concours (May 5) is now history. BAEM made its third appearance there and we were given a warm welcome. Join us next year. The organizers provided coffee and goodies in the morning, a nifty lunch, and good support for the display. Members Gravatt, Hurst, Pretel, O'Connor, Myers, and Kradjian showed 25 engines most of them "runners."

I won't see you at the May meeting. Instead will attend the Woodland Collecto. Someone take notes!

TECH TOPICS

BY
SCOTT OVERSTREET



Lew Throop did a fine job last meeting telling us how to make miniature spark plugs. We learned that Corian is the practical material to use for the insulator and that epoxy is good enough to hold the insulator into the body, but that a swaged or rolled seal also is the best way to go. Lew uses 12L14 hex rod for the body and now forms the ground electrode by machining. He does this by first machining the body with a blind square bottom hole (end mill tooling) and then, with slitting saw and end mill operations, machines away everything necessary to leave only the desired ground electrode extending over an otherwise open hole just as on a conventional spark plug. Lew said that he has tried silver soldered on electrodes but now favors the machined approach.

Lew makes the center electrode from steel music wire and the top cap connector from either brass or steel as is appropriate for appearance. He first solders the cap onto a length of wire. Then, after shortening the wire for the desired spark gap when inserted into the insulator, he simply epoxies it in place.

Lew reviewed commercially available miniature plugs which he said were available for about \$15 each. This price sounded like a bargain after hearing Lew's presentation. I wonder if he will make plugs to order for \$15. Maybe that's what Lew has been up to with all his traveling lately; a worldwide sales and marketing campaign with offshore manufacture using high volume mass production techniques. I'm just kidding, but in any case, Lew's presentation was very well received by a very interested audience and his plugs are true works of art. Many thanks, Lew.

Now, who is on for next week's Tech topics presentation? Giovanna Villanueva and Jim Duncalf, that's who; but who are they? Gio (as she likes to be called) and Jim are the principals of a new local corporation working toward production of an engine they described to me as being the revitalization of some old ideas with current design, materials and manufacturing techniques. To get to the point, "enEco" (their company) is designing and developing a modular two cycle engine that uses a cam mechanism rather than a simple conventional crank pin. Their basic engine, which is configured in its basic form as two opposed self charging "cylinder modules" on a non-pressurized dry sump cam case can be expanded to any practical number of cylinders radial engine style except that the cylinder count is always even rather than odd. They show a radial "6" as a practical design. Performance? 2.5 hp/cubic inch, 1.2 lbs/hp, 500 to 5000 RPM range, electric motor smoothness and operation on straight gasoline or gaseous fuel without any mixed in oil are all said to be achievable in small sizes. Their first target uses are outboard boat motors, chain saws, scooters, ultra-lite aircraft and other similar applications.

Jim has patented the various details and envisioned possible configurations of the engine and is quite open with the details of the design; in fact, so open that I'm sure he will tell all you would need to know to model it. This is an interesting opportunity as you might be able to get your own model running early enough to help enEco in their development program. Eager to model it or not, don't miss this one as someday you might be able to say — "Well, the designer of that engine told me all about it back in '02". Oh, one thing more; both Gio and Jim asked if there would be any model engines at our meeting for them to see. I assured them that there would be, and that they would be run for them. If you can, please bring an engine that you think will impress them. Thanks.

Scott

For Sale

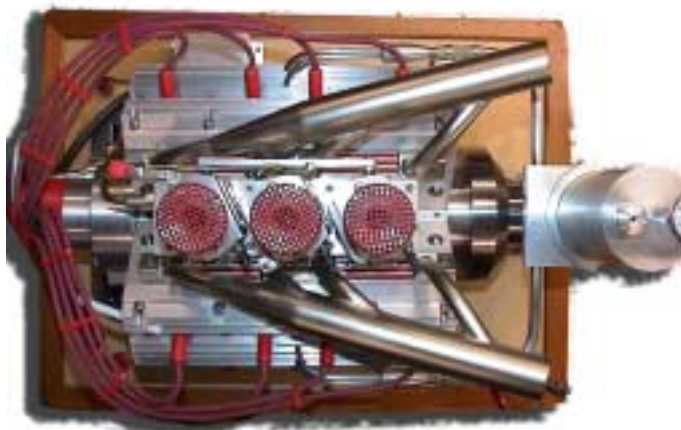
100 Reamers Sizes from .053-.3755. \$150.00. Contact Dick Pretel at 408.257.2407



Lew Throop's manufactured plugs.



Lew Throop's Whittle V-8



Dick Pretel's Object d'Art V-8 l. and r.



Eugene Corl's Chevy block r. and l., below the head and headers.



Eugene Corl's pistons and con rods above and below.



Bob Kradjian's Schillings V-8

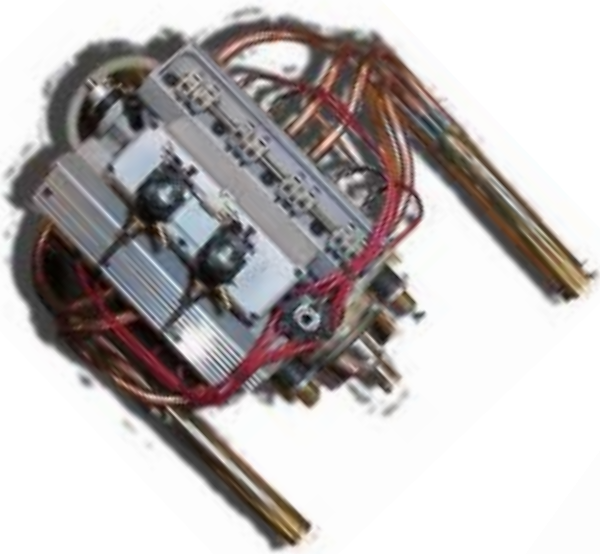




Eugene Corl's Harley head pattern



Al Vassallo's self starting steam engine.



Bob Kradjian's Conley V-8



Ken Hurst's Challenger V-8



Bob Haagen's V-8 l. and r.

