

The Crank Calls

October 2007

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NEXT MEETING

Oct 20 19, 2007 at
 Conxtech
 24493 Clawiter Rd. Hayward 94545
 Doors open at 9 AM
 Meeting Starts at 10 AM

Upcoming Events

**At this time it appears that
 future Meetings will be at the
 Hiller Museum in San Carlos**

MEETING NOTES

Carl Wilson

Shannon Lile talked about the steam-powered sawmill near Sebastopol, CA. This is the last steam sawmill in the area and has been restored to service with the donation of a used boiler. They will be sawing wood Sept. 28 and 29, unfortunately that will be before you receive this newsletter. The web site for the mill is: <http://www.sturgeonsmill.com/>

Irene Lile talked about the EDGTA regional meets in the area: The Northwest regional was held at Tillamook OR in August, and the Southwest regional will be in Paso Robles the first weekend of October. The web site for the EDGTA regional shows is: <http://www.edgeta.org/Shows.htm>

To make up for those events already past, I will mention that BAEM will host the second WEME show next year. The dates and location have not been determined: it will probably be a week or two earlier in July and possibly at the San Mateo County Fairground.

Joe Landau posted the photos from the first show at: <http://baemclub.shutterfly.com/action/> He would like help identifying the model shown in some of the pictures, so help him out if you can.

GEARS was great. I saw these BAEM members:

- Dario and Angel Mecchi
- Dave and Karen Palmer
- Dick and Beth Remington
- Dwight Giles
- Tom and Eunice Armstrong
- Eugene and Berneta Corl
- Gordon French
- Ken McDole
- Jim Moyer and son Joe
- Mike and Toni Rehmus
- Pat and Carolyn O'Connor
- Robert and Frances Washburn

Also present was past member Don Comstock who showed his V16. A gallery of good pictures is at: <http://www.bills-shop.com/gears.htm>.

Tom Hare brought a set of gaskets that were custom made on a laser cutter for Tom Armstrong's Snow engine. A friend of Tom Hare owns the cutter and will do custom work for about \$2/min cutting time.

Corey Renner had his Duclos designed engines sitting on the table outside the conference room, but he arrived late to the meeting and did not present them to the club. He sent me these notes:



This is a Phillip Duclos Maverick hit or miss that is slightly customized. That's the one that I finished at the last minute so that I could display it at the Vallejo show. Dick Pretel gave me a lot of pointers to get it running right. The biggest problems were ignition and finding a proper spring for the atmospheric intake valve. I got it running on gas first, then converted to propane for convenience and lack of stinky exhaust. On propane, my wife lets me run it in the house, on gas it had to stay in the garage. The engine plans are from HSM. It has a viton o-ring on the piston, which seems to work very well and is much less trouble than making a conventional ring. The propane and viton o-ring are both ideas that I picked up from Tom Stuart at the 2006 GEARS show.



Jerry Howell's 4-in-1 vacuum engine is just parts at this point. This one is pretty heavily customized; I'm rethinking each part and trying to make it look like a real full-size engine that has been scaled down rather than looking like a made-up engine, which is what it is. Each part of the frame is meant to look as though it was

machined from castings even though it's all billet. The only part I've made since the last meeting is the baseplate, but this lets me partially assemble so you can get a real sense of how it's going to look. I anodize at home, and I'm planning on anodizing the frame in a deep bronze color, clear anodize or brass for moving parts, and a nickel-plated flywheel. It should look pretty good when it's done.

TECH TOPICS

Dwight Giles presented his method of making distributor caps and rotors and included some valuable tips on machining and finishing acrylic plastic. Let's start with the latter:

1. Very sharp turning tools and high spindle speed
2. For cooling and lubrication use a spray bottle filled with water plus a wetting agent such as dish washing detergent
3. Sand with 600 grit wet or dry paper – wet
4. Sand with 1200 paper – wet
5. Polish with any of these materials: metal polish such as Flitz, Brasso or Simi-Chrome, acrylic polish from TAP Plastics, toothpaste, or household abrasive cleaners such as BonAmi.

Dwight uses clear acrylic bar for the rotor caps. He noted that it fun to watch the sparks jump between the terminals and that the clear plastic allows him to see if the sparks are "doing something they shouldn't be doing." High voltage current from the ignition coil enters the cap through a spring loaded center post and is distributed to the sparkplug lead terminals by the rotor. There is a 0.006-0.007" gap between the tip of the rotor and the terminals. He showed two slightly different methods of making the terminals: both use 1/8" round brass rod inserted into holes drilled into the cap. In one cap they were left round and in the other cap they had been partly cut away by a boring operation. In both cases the terminals were glued in with cyanoacrylic glue. Dwight said to put a little bit of glue on the terminal and then push it into place – do not put glue into the hole first because the glue tends to run and mar the nice finish on the cap. The rotor was a piece of clear acrylic with a brass electrode.

GEARS pictures



1st place engine

