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

The Crank Calls

March 2011

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NEXT MEETING
March 19, 2011 at
Chabot College, building 1500
25555 Hesperian Blvd, Hayward 94545
Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

Palo Alto Concours, June 26, Stanford Medical Center.

2011 annual membership dues are now due!
Mail dues to Ken Hurst at address above

MEETING NOTES

Meeting Notes
Bob Kradjian
February 19, 2011

President Don Jones called the meeting together at 10:00am.

Visitors included:

Mike Geyer from Woodland Hills

Gibson Anderson

Bob Marks

Greg Stedman

Mark Baker

Robert Leggoe

First Pops:

This is a much belated First Pops. Don Jones somehow obtained a nice video of John Palmer firing up his reproduction of a 1908-11 Wright Model B engine. That's Wright as in the Wright brothers! The date of the video and the first pop was 2003 at John's home in Campbell. The engine is a faithful copy of the original with the exceptions of minor changes, such as a pressure oil system instead of splash. This engine had no carburetor and accordingly, no throttle. Carburetion was by gravity, and spray, with fuel flow controlled by a petcock! Standard pump gasoline was employed. Advancing, or retarding, the spark controlled the engine speed. Rotating the entire magneto controlled this timing. Levers connected the magneto to a foot-operated rocker. There was no exhaust manifold. A baffle protected the intake manifold from the direct exhaust blast. The intake valves were atmospherically actuated. Rotation was clockwise when facing the prop. A kill button quieted the whole thing down. The crankshaft was whittled from a 2" by 8" block of 4140. The cylinders were turned from solid cast iron bar stock with a bore of 4 and 3/8". The stroke was the same. Turning the cylinders resulted in a weight loss of around 90 pounds and the final cylinder weighed in at a slender 9 pounds. The connecting rods were unusual. They

had cast bronze fittings threaded onto each end of tubular steel mid section. The hollow portion of the rod mid-section was a one-inch inside diameter, but the ends where the caps threaded on (at 20 tpi) were bored to only 5/8". This created a problem in turning, as there was precious little room to clear chips.

John made three of these gems. One is easily viewed at the Hiller Aviation Museum in nearby San Carlos. The other two are on the other coast, one in Maine, and the third is in Maryland. John also supplied most of the cylinders for builders all around the country who were making replicas for the Wright Centennial.

Some of us recall the time John fired this beast up at Paul Bennett's shop. It creates a truly fearful sound. John anchored the stand into holes drilled into Paul's cement floor and used split lead to anchor the bolts.

Mike Rehmus tells us that the busy lads at University of Idaho (Moscow) have completed CAD drawings for this Wright engine.

Secretary's Report and Activities:

The Palo Alto Concours will be June 26 at the Stanford Medical Center. For details, see www.paconcours.com. The theme will be Ford flatheads as well as the usual assortment of fine domestic and foreign autos. These shows have averaged 10,000 visitors in the last few years and a new event staff promises improved creature comforts for the anticipated warm weather. The usual BAEM suspects will be on hand to make noise, and perhaps make some new friends.

Also discussed was the "big one", the August 26-28 Good Guys West Coast Nationals. We were pleased to learn that Jim Moyer will be coming down from Washington State with his incredible one-sixth scale small block Chevy. Lou Chenot will show his amazing Duesenberg and run the engine on a stand. Following the show, it will be installed and the car and not to be run again. Ron Bement's amazing Ardun Ford will be there. For details, see issue 20 of Model Engine Builder. But for now, just know that this astonishing engine is carved out of solid metal using CNC. Many of the critical parts are epoxied together. This is the same technique Clen Tomlinson used in his 18 cylinder, three-crankshaft Deltic. This engine, and Clen, will come all the way from England. Clen will have to make a four thousand dollar plus deposit to ensure that the model returns to England! The World's Fastest Indian quarter-scale model engine will also be there. I can't imagine another miniature engine show in the world with a line-up like this!

Vendors will include Sherline Tools, The Little Machine Shop, The Village Press, Model Engine Builder Magazine, and others to be detailed later.

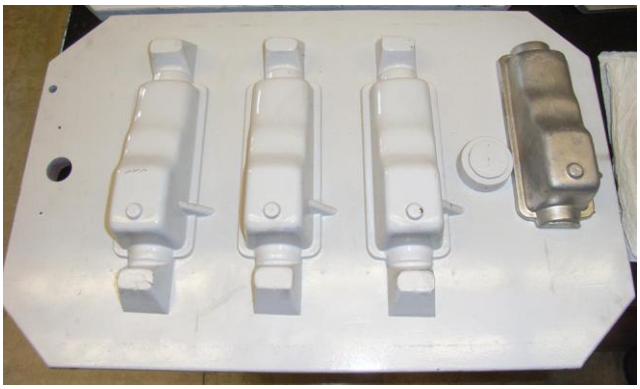
The club needs to finalize exhibitor forms, details of the layout (Pat O'Connor volunteered), and more information on unloading bulky items such as Locomotives. Roy Anderson will present this information to members of the Golden Gate Live Steamers at their next meeting and we may see some of their fine work.

Mike Rehmus gave us a report on the January Cabin Fever Show. It was well attended, and had a huge auction. One display that intrigued Mike was a home-brew, low-tech EDM device. This was made simply from an auto battery, and a shop wound coil with central metal connected to a brass tube that served as the electrode. An aquarium pump supplied the water for cooling.

Two safety issues were discussed. The first was the use of engines swinging propellers at shows. In most previous venues, this was done only with restraining lines. The other issue was the use of live steam. Most agreed that this would not be workable for BAEM at Pleasanton.

BITS AND PIECES

Dwight Giles gave us an update on the "Black Widow" V-8 project. Four of these engines are nearing completion, two in black, and one in red. (Would this be a "Red Widow"?). These engines have the superchargers we've seen on the previous models.



The match plates for the oil pan and the intake manifold were on display, as well as a finished casting of the pan. The quality of the pan casting is remarkably good. There is no visible porosity. Dwight and Ken located a foundry in San Jose who produced the casting. It is:

Accu-Burr Metal Finishing, Inc.

1522 Berger Drive, S.J., 95112.

Phone is (408) 998-7172.

Camshafts: Dwight's home brew heat-treating method is worth noting. He chucks the shaft in a slowly turning drill press and heats the top four lobes with a torch to a cherry red. Then he dunks it, straight down, into water. This process is repeated on another batch of lobes, with minimal distortion resulting.

Jim Kipp, in separate development in Southern California is working on a CNC'ed block for the Black Widow.

Don Jones is doing the CAD drawings for the project and this important task is nearing completion.

A discussion of nitriding was next. This is a heat-treating process that alloys nitrogen into the surface of a part to case harden it. The various methods of nitriding are with gas, a salt bath, or with an ionized gas (plasma). The gas method uses ammonia that disassociates into hydrogen and nitrogen.

Steve Lawrence was having difficulties holding short turned studs in stainless steel. He decided to take hex stock, bore and thread it. Following that, he slit one of the faces. When the stud is threaded into the hex, clamped into a three-jaw chuck it chases the threads quite nicely and can be firmly grasped without marring the threads.

Pat O'Connor has always been interested in opposed piston engines. He described an interesting Rootes-Lister example with four connecting rods and pistons that have differing speeds! Details galore are easily available on OldEngine.org

Carl Wilson recently rescued some wonderful old prints from an 1899 Scientific American. He also saved a discarded slide rule and wondered how many of us remember using them. A whole lot of hands shot up.

CORRESPONDENCE

Steve Jasik writes, "Here is my setup for precision part cutoff for up to about 6" or so. You need a REAL Aloris tool holder which comes with a 3/8"-16 hole in the side"