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

MEMBERSHIP
$25.00 US
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The Crank Calls

December 2007

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NEXT MEETING
December 8, 2007 at
Hiller Aviation Museum Doyle Room
601 Skyway Rd, San Carlos 94070
Doors open at 10 AM
Meeting Starts at 11 AM

Upcoming Events

Christmas party – Dec 8 at Hiller Museum

MEETING NOTES

11-17-07
Carl Wilson

North E. West, on behalf of the Hiller Aviation Museum, welcomed about 40 members of Bay Area Engine Modelers to our latest "home." Dick Pretel and North West arranged for us to meet at the museum for two months, November and December, this year. We hope to make this arrangement permanent.

First pop honors were accorded to George Gravatt and John Palmer. George is restoring a 1903 WaterBoy hit-n-miss engine that last ran 62 years ago. John started a 1902 Fairbanks that has sat disassembled in a barn for 20 years. It arrived in John's shop in a bucket: some assembly required. It has both a hot-tube and igniter installed which is a bit unusual. John did not have the chimney for the hot tube and ran it on the igniter.

Lew Throop says "Dues are due!" Cash or check payable to Lewis Throop - $25 for the fun of belonging to Bay Area Engine Modelers for the year 2008.

Joe Landau has uploaded the high-resolution photos from our engine show to our website on shutterfly: http://baemclub.shutterfly.com/action/. They are suitable for high quality prints. Joe displayed a custom printed calendar for 2008. Cost is about $20; this webpage should get you started: http://www.shutterfly.com/shop/product_c10015-p2030/Calendars_Classic_Calendars. Chose the photos you like and have them print your very own special calendar. Be the first on your block to own one!

Mike Rehmus apologized for the poor quality printing in the latest issue of Model Engine Builder. The printer is reprinting the entire run and will mail them to each subscriber. Mike asked everyone to throw the first one away: don't even give it to anyone. That was the bad news. The good news is the forthcoming construction articles that will include Val, a single cylinder upright engine made from bar stock; HEX-4, a four cylinder in-line using Cox cylinders and pistons; and HumBug, a compression or glow-ignition engine that can be made on a Sherline or similar small lathe.

Pat O'Connor talked briefly about the General Motors development of the Homogenous Charge Compression Engine (HCCE.) It uses spark ignition at lower speeds and loads, and switches to compression ignition at higher speeds and loads – on gasoline! More information at: http://en.wikipedia.org/wiki/HCCI

Alan Zulberti's fascination with PT boats began at age 10 with reading a story about them and has culminated many years later with this magnificent scale and operating model of PT 588. Alan researched the history of PT boats and gave us this capsule history. The first armor plated battleships date to about the Civil War. PT boats evolved as one of the attempts to combat the advantages of the iron, and later, steel heavy combat vessels. The English, in 1886, invented the torpedo using barometric control of depth of running. The first PT boat, for Patrol Torpedo,

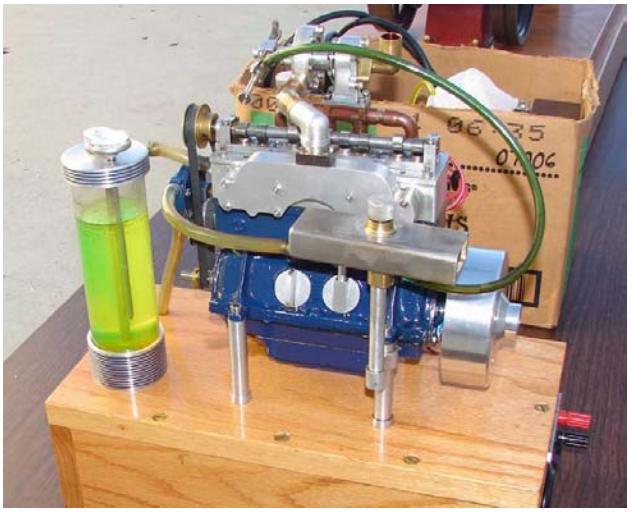
was developed in 1894 and had its first combat success in 1918. At the beginning of WWII Douglas Macarthur, realizing that it would take considerable time to develop ships to interdict the large volume of Japanese inter-island shipping, wanted a large number of small fast ships able to deliver torpedoes. Electric Boat Company licensed a British design, modified it, and produced a large number of wooden hulled boats about 70-80 feet long. These small ships were intended to launch torpedoes against surface combat ships, especially destroyers, and troop and supply vessels, but their greatest successes were using deck guns against the shallow-draft barges that the Japanese used to evade the danger of torpedoes. Virtually all PT boats were decommissioned and destroyed at the end of the war: their extremely high fuel consumption and the necessity of constant maintenance of the wooden hull condemned them.

Alan pointed out some of the details of his boat: the forward deck gun will be operational and will fire 3mm rounds. The stern gun was built in St. Petersburg, Russia and its manufacture required one year of highly skilled labor. The torpedoes and their launchers are also operational: their scale speed is 63 knots. A 12 volt DC battery originally designed for missile technology powers all of this; the control system is a 28 channel radio control. There is a sound system synchronized with the electric motors to provide the realistic "roar of the exhaust." The sounds were recorded from "Thunderbird", a boat based on Lake Tahoe that has twin Allison V-12 engines. From starting and idle to full power, it's all there.

BAEM extends our thanks to Alan for joining us at the November meeting and displaying his wonderful model.

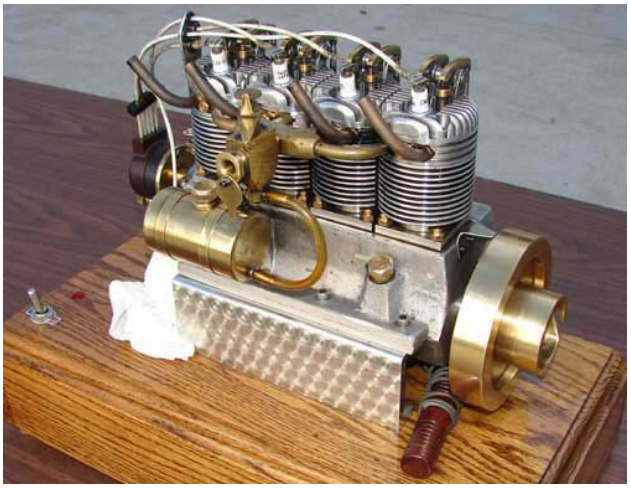
Lew Throop brought for show and tell a neat low profile clamp – the Shop Fox D3347 by Woodstock, International: http://www.woodstockint.com/Products/14007000/D3347/. This is designed for use with the aluminum tee track that is popular with woodworkers, but it can easily be modified for metalworking uses.

Lew Throop's scriber



Pat O'Connor's Wall 4

An International Harvester air-cooled Tom Thumb by Ken Kelso



Panther Pup by Dwight Giles

TECH TOPICS

John Palmer presented the tech topic: Low Tech Crankshaft Grinding by a Cold-Iron Blacksmith. Now of course a cold-iron blacksmith is a machinist, but it does remind me that the only blacksmith in hell was consigned for hitting cold iron! I'm sorry to say that we do not have a photo of John's first device for lapping a crankshaft, so bear with me while I drop a few words into place. Try to make a mental picture from this: take two pieces of 2x4, yeah the wood stuff! about 18-24" long: we are going to make a giant "nutcracker." Place them edge-to-edge and either hinge them together at one end or drill for a long bolt to act as a hinge. Near the hinged end bore a hole centered on the joint that is slightly larger than the journal. The hole in each side of the "nutcracker" will be lined with a length of shop roll. The ends of the abrasive paper is secured to the arms of the "nutcracker" with staples to prevent the paper from rolling around inside the hole. Shim behind the shop roll until it cuts properly, figure out some way of rotating the crankshaft, and away you go.

We have a good photo of John Palmer and his "in-the-car" crankshaft grinder. Let's build another mental picture. At the top of the tool there is a light colored "hook" surrounding a darker donut. Replace the donut with a rod journal from, say the Hudson truck driven by Al Joad in Grapes of Wrath. A bad rod bearing has scored its journal and the crankshaft needs to be reground. This is the tool! Hook the curved support around the defective journal and adjust its shoes to fit. Bolt the dark gray steel pieces in John's right hand to the bottom of the crankcase via the holes that secure the oil pan and you are nearly ready to go. Just behind his left hand is the electric motor, note the power cord, and the motor drives the small mounted point (grinding wheel) that can be seen a small distance from the donut. This wheel cuts on its end and the in-feed adjustment knob can be seen just below John's left shirt cuff button. Oh yeah, we have to rotate the crank and some improvisation will be necessary here. Usually one wheel was jacked up and rigged to another motor via a belt to get things moving. You have to be careful here to make sure that the grinding attachment clears all the other internal stuff in the motor, so make a rotation or two by hand first to check clearances. Ok, now by power, and the attachment oscillates around and up and down on its support rod as the crank rotates. Feed the grinding wheel toward the journal until it sparks and then swivel the motor back and forth so that the grinding wheel covers the full surface of the journal. Nothing to it!

Stuff for Sale

A New Holland engine, $1200,
contact Glenn Crockett:
hitnmiss@lonax.com>hitnmiss@lonax.com