≗Crank Calls

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

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March 2002 www.baemclub.com

NEXT MEETING 16 March, 2001 AT 10 PM

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



TEEM PAWS REEL

This March meeting will be the annual swap meet. Bring all the good things you no longer need or want to store and turn them into cash. Starting with the April meeting the club will be holding raffles. If anyone would like donate any items to the raffle contact Ken Hurst.

BAEM Meeting Notes February 16, 2002 Bob Kradjian, secretary

President Ken Hurst called the meeting to order at 10 am.

We started with the introduction of a new visitor, and a surprise "repeat visitor". Our new visitor was Joe Landau of Los Gatos, and our repeat visitor (his words) was Gordon French. Welcome back, Gordon, we missed you!

Lew Throop, treasurer, has paid our annual dues and insurance. We still have a balance. He gently chided those who have not paid the 2002 dues and noted they will not be receiving the newsletter henceforth. Members who do not have a BAEM badge should contact Lew or Mike Rehmus.

My special events report included confirmation that we are invited to put on a miniature engine show at the Hillsborough Concours (May 5). This will be our third. We have also been invited back for a third visit to the beautiful Blackhawk Auto Museum for a Post-Pebble Beach Open House in August.

A remarkable and pleasant development is the invitation for our engine club to put on a demonstration of our engines at Blackhawk on November 16. (This will be a combined, presentation, club meeting and field trip as it falls on the third Saturday of the month.) This is an opportunity to show our engines to the public and the museum membership. This is to be followed by a free tour of the museum (with docents), and an offer of discounts for eating and shopping at the Blackhawk if desired. The Blackhawk staff will provide all the publicity, support, and the venue. Blackhawk is an affiliate of the Smithsonian Institute and we are fortunate to be invited. We have been working on this project for over four years.

Mike Rehmus gave a fine report on the Cabin Fever engine meet in Amish country near Harrisburg, Pennsylvania. Also attending were BAEM members, Steve Jasik and Miguel de Rancougne. Mike described Cabin Fever as bigger than PRIME or NAMES. Model ships, a steam track layout, and even a steam engine powered peanut roaster were on display.

The featured engine was the Rolls-Royce "Merlin" V-12 by Richard Yeagley. Member Bob Shores had his new four-cylinder engine there, and David Bowes had his electronic valve single cylinder engine in an improved state.

Mike feels that Cabin Fever is the best single show for content, venue, food, and ambience. Next year's meeting will be in a larger hall. Mr. Rehmus will have a videotape of the show available, perhaps in April. I've ordered mine, please do the same. The special BAEM price is \$25 including tax.

For those concerned with driving all the way to Oakland for a meeting, consider the problems Miguel encountered in commuting from Paris to Pennsylvania. Miguel is possibly the only man in the world who has jetted from Paris to Fresno—several times—in pursuit of "big boy's toys. These strange journeys were to the Sabbatini Collecto for little engines and tether cars. This year's meeting will be March 23, and—yes, Miguel will be there.

Bits and Pieces:

New member, John Meredith, brought his very neatly machined Sea Lion. It looks great and features a nice oil pressure gauge. He bought his castings from "Woking" in the UK. Our domestic source was Power Models in the US. This facility was unfortunately lost in a fire.

Karl Van Dyk showed a neat plastic visible four-cylinder engine sold by K-Mart as the "Popular Mechanics" model. It is powered by a small electric motor that spins the crankshaft and valve train. I found that an identical engine was also sold as the "Smithsonian Institute" engine.

There is an unusual "Jeff Gordon Real Sounds Engine" that has no animation, but lots of nice sounds on a chip. Starter, shift, and engine revving sounds are rather realistic.

George Gravatt has done some nice development of a weed eater magneto for one of Bob Shore's Silver Bullets. See George for details on this conversion.

Mike Rehmus showed us a 300 dollar Westinghouse Phase Converter (Taiwan built) that he bought at the Cabin Fever show. This unit converts single phase (in) to three phase (out). A brisk discussion of phase conversion and methods followed. It seems that there is enough interest in this subject to warrant a later tech-topic presentation.

Dwight Giles showed two highly modified Upshur singles. These engines have the usual Giles trademarks of crisp machining and intelligent modifications.

Carmin Adams brought in a Monitor casting set with plans from Pacific Model Design in Oregon. It seems that the casting set Carmin ordered was shipped to the Midwest, and he got the Monitor. If someone wants the kit, there is a discount for the shipping (around \$375). The castings are extremely fine.

Ken Hurst is building a 90-degree crankshaft for a new V-8. He showed the holding fixture, which is a cylinder with an eccentric holding cavity for the work piece. The work is rotated 90 degrees for the next journal.

Perhaps Ken will give us a report on the several new V-8 engines that are being developed by club members. These engines are largely original and highly sophisticated. We are fortunate to have this activity in the group.

Tech Topics:

Rudy Pretti has a knack for making a difficult subject accessible. There were sheepish grins when he asked if

anyone had ever broken a tap. One old timer wouldn't admit to breaking a tap, but did confess that he had "bent a few.

See you on the 16^{th} . Bring some running engines, especially ones that have been here before. Guaranteed, there will be people who haven't seen your engine run.

TECH TOPICS

BY SCOTT OVERSTREET

Last month Rudy Pretti continued his "Shop Wisdom" series (as I've named it) into the finer points of "Taps and Taping."

Some of the details we learned are as follows: —



Why Do Taps Break?

- 1. Dull taps can break from excessive torque required to cut the thread. If a tap doesn't cut freely, replace it with a sharp one.
- 2. Misalignment can break a tap from either the excessive torque required to run it into the side of the hole or by the bending force result from the tap trying to follow the hole after being started or driven either off center or at an angle to the hole or both. Use a tap guide block.
- 3. A "hand tap" can break because of excessive driving torque required if it is allowed to "pack" with chips. Every turn or two, back turn the tap a half turn or so to break the chip. At the first sign of increasing resistance, back the tap out of the hole and clean the chips out of the tap.
- 4. Tap drill size too small for thread or material. Standard tap drill charts are for a thread of about 75% depth. A thread of this depth is not required for strength when the threaded hole is longer than about 50% over the diameter of the screw. When taping work hardening materials or using taps with a deep thread to diameter ratio like a 6-32, consider increasing the tap drill diameter for about 55% thread depth.
- 5. Lubricant is inappropriate. A tapping lube should almost always be used. Some materials are particularly demanding upon tap lubrication. Use of specialized tapping lubricants is recommended when exotic materials are involved. Rudy suggested the following lubes as being effective: bacon fat/lard (addition of a bit of sulphur helps) for mild steels, kerosene for cast iron, kerosene or WD-40 for aluminum, kerosene with a little oil added for brass, Coca-Cola for hard steels and soapy water for plastics.

Tap Sharpener

Rudy next presented a way of using a lathe, with a small grinding wheel on an arbor in the headstock and a tricky tap (or other tool) holding block on the compound, to form a very usable "poor man's" tool and cutter grinder. Refer to the attached sketch and Rudy for more detail, if necessary. Note that the tool holder allows angular adjustment to the wheel in two axis and the compound screw is used to advance the tool (tap) to the wheel. The necessary clearance behind the tap cutting face is accomplished by advancing the tap to the wheel by the amount of desired clearance behind the cutting face and then via a tap wrench, reverse rotating the tap and stopping just short of the cutting face.

In his wrap up – Rudy reviewed the common tap types, i.e. plug, taper, bottoming with both the spiral (gun) nose for through holes and the "hand" and other special types for blind holes. He also talked about pipe thread taps and how and why a leadscrew driven taping arrangement is often used to force a pipe tap into the work when a high quality female pipe thread is required. We learned a very useful tip here; stop the pipe tap with 6 threads remaining for the correct fit to a standard male pipe thread —— Rudy says this works regardless of pipe size. Thanks Rudy for another very interesting and informative presentation.

What's up for Tech Topics this next time? Something new. Carl Wilson is going to lead BAEM's first and

last FATDOGS. For you who are acronymically curious, FATDOGS is the First Annual Tool, Device, and Odd Gadget Show. The price of admission to this never to be repeated event (at least being called a FATDOGS anyway) will be your example of a tool, device or odd gadget from one or more of these categories:

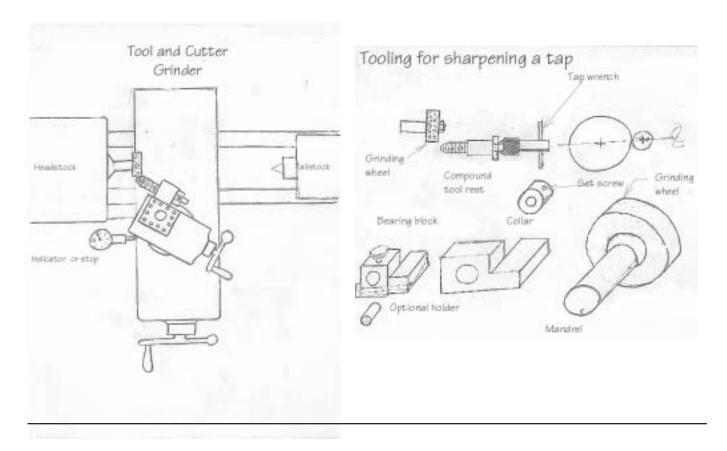
A tool, device or odd gadget that you made or acquired that works marvelously, equal to or better than anything else you have ever seen or heard of.

A tool, device or odd gadget that you bought in the heat of the moment and has since resided out of sight in the bottom of the toolbox or at the back of the shelf, unused and unloved.

A tool, device or odd gadget whose function is mysterious or unknown; that is, you may know what it is, but most of the rest of us will be mystified. Try to stump the experts of BAEM!

This sounds like interesting fun to me; I'll be there with a device I made that is a big, big (yes two bigs) improvement to my DoAll bandsaw. Be sure to bring something to show; any size is okay and even only a remote fit to one of the above categories is good enough. See you Saturday.

Scott



For Sale

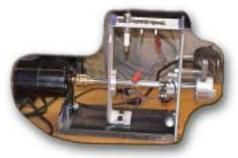
Arco Model A 5 HP Rotary phase convertor \$350 or best offer. Roger Slocum 408-866-6243



John Mitchell's Sea Lion.



Karl Van Dyk's Visible engine.



George Gravatt's magneto tester.



Dwight Giles Upshur Farm engines(r and l).



Closeup of Upshur head end.



Carmin Adam's Monitor castings.





Carmin Adam's 3 throw crank.



 $Bob\ Kradjian's\ French\ De Lage$ tether car.



The "Eagle"

By Bob Shores

Bob Shores new Eagle engine kit.



Bob Haagenson's VW(l andr.).



4 Jaw centering device.





A well attended Feburary meeting.

