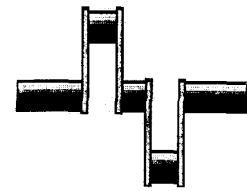


The Crank

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April 2003

www.baemclub.com



LOOK!, Al's 2 cycle opposed



NEXT MEETING
April 19, 2003, 10 AM AT
Robert Schutz's Shop
366 40th St. Oakland, CA

March 15, 2003 Meeting

BAEM

Bob Kradjian, secretary

Sad News: Our friend and club member, Miguel de Rancogne passed away from throat cancer in Paris, France. He had planned to attend the collecto in Fresno on 22 March, but on the 19th e-mailed me that he was forced to change his plans on his doctor's advice. Miguel was a managing director of a large plate glass manufacturer, but his passion was collecting high quality miniature engines. He was a man of high character, a warm friend, and possessed of great integrity. He will be missed by his many friends in the miniature engine fraternity all over the world.

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

There were three visitors, two of whom became members! They are Earl Mathiesen, a friend of Corey Renner; and Lenard Higgins a friend and neighbor of Ken Hurst. Other new members are Bob Ruiz from Newark, CA and John Vietti from Thermopolis, WY. A warm welcome to all of these gentlemen! Total membership is now 97.

Visiting was Frank Holyoake from Hayward, a

friend of Hugh Walker.

Treasurer's report:

Lew Throop reports that we have \$1312.00 in the bank. He also reported on the insurance situation, which has stabilized since the meeting. A letter sent from EDGE&TA on March 28 tells of a new carrier with a reimbursement due to our club of \$1.70 per member. Insurance will be requested for every monthly meeting as well as all engine shows.

First Pops:

Matt Keveney fired up his new steam engine. This is a single cylinder oscillator called the Minikin. It was published in



the Steam and Sterling book, and has a half-inch bore and stroke.

In Southern California, prolific builder Bob

Haagensen finished another ambitious project, a Bentley BR 2. Bob isn't afraid to tackle any project, and they all are great runners.

Closer to home, Ken Hurst ran his latest, and most complicated, project. A Roots-blower equipped, overhead valve V-8. The Prez says that it nearly jumps off the bench when he hits the throttle. He is using Mike Neal's latest Hall-effect type ignition system for a hot spark.

Bits and Pieces:



the crankshaft.

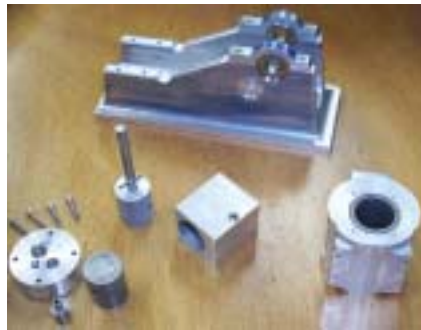
Ken Kelso built a "Topsy Turvy" from a Machinist's Workshop magazine article. He says the engine may require a larger, or even a second flywheel.



Gordon French showed a Triplex Headlamp with three LED's that he likes. It is available from Held's Discount Knives for \$24.10 plus shipping. To the Bay Area, this totals \$29.95.



I've ordered one and will give a report. Gordon likes his. The lower price that he mentioned at the meeting was an introductory price. The phone number is 1-800-818-7862.



Corey Renner showed us his progress on a Bob Shore's "Silver Eagle." Some of you may not know that Corey is

not only a talented machinist---he is an experienced pilot.

Mike Rehms suggests that we raffle off our Club camera. It is a 1.1 mega pixel Olympus that is in great shape.

Ken Hurst tells us that his V-8 ignition system works off the crankshaft, has 4 magnets that trigger a Hall-effect driver. It also has a built-in timing device and operates on any voltage from 3.6 to 12.

I hope to have diagrams and reports on the intriguing, new Volkswagen "W-12" engine for the next "Crank Calls." Just as a "teaser," think of two capital letter "V's" together. That is what makes the name: "W". Think also of two V-4 engines lined up end to end, the rear one is rotated 15 degrees and magically "smooshed" together with the cylinders almost touching. The cylinders that result are both offset and staggered. Fascinating stuff; the Volkswagen people have also designed a V-12 and even a special order V-16 for an upcoming Bugatti.

Remember, bring engines to show or run to the April meeting. Also, if you have a project that is in development---bring it along. It has been a source of great enjoyment to see various engines or other projects "growing" from meeting to meeting.

See you in April.

Photos by Bill Nickels

TECH TOPICS

BY PAT O'CONNOR

April's tech topic will be presented by John Palmer. John has produced three full size replicas of the 1906 Wright upright 4 cylinder flyer engine along with 60+ cylinders to repair other existing engines. He plans to bring one of the engines for static show-and-tell.



Ken Hurst's V-8 Intake Manifold



Al Vassallo's 2 cycle opposed aircraft engine



Dwright Giles wooden blower intake molds



Photos by Bill Nickels



Screw Torques

Suggested Maximum Torque for Screws

Screw Size	Low Carbon Steel		18-18 Stainless		Brass		Silicon Bronze		Aluminum 2024-T4		316 Stainless		Monel	
	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm	in-lb	Nm
2-56	2.2	.25	2.5	.28	2.0	.23	2.3	.26	1.4	.16	2.6	.29	2.5	.28
2-64	2.7	.31	3.0	.34	2.5	.28	2.8	.32	1.7	.19	3.2	.36	3.1	.35
3-48	3.5	.40	3.9	.44	3.2	.36	3.6	.41	2.1	.24	4.0	.45	4.0	.45
3-56	4.0	.45	4.4	.5	3.6	.41	4.1	.46	2.4	.27	4.6	.52	4.5	.51
4-40	4.7	.53	5.2	.59	4.3	.49	4.8	.54	2.9	.33	5.5	.62	5.3	.60
4-48	5.9	.67	6.6	.75	5.4	.61	6.1	.69	3.6	.41	6.9	.78	6.7	.76
5-40	6.9	.78	7.7	.87	6.3	.71	7.1	.8	4.2	.48	8.1	.92	7.8	.88
5-44	8.5	.96	9.4	1.06	7.7	.87	8.7	.98	5.1	.58	9.8	1.11	9.6	1.09
6-32	8.7	.98	9.6	1.09	7.9	.89	8.9	1.01	5.3	.60	10.1	1.14	9.8	1.11
6-40	10.9	1.23	12.1	1.37	9.9	1.12	11.2	1.27	6.6	.75	12.7	1.44	12.3	1.39
8-32	17.8	2.01	19.8	2.24	16.2	1.83	18.4	2.08	10.8	1.22	20.7	2.34	20.2	2.28
8-36	19.8	2.24	22.0	2.49	18.2	2.01	20.4	2.31	12.0	1.36	23.0	2.60	22.4	2.53
10-24	20.8	2.35	22.8	2.58	18.6	2.10	21.2	2.40	13.8	1.59	23.8	2.69	25.9	2.93
10-32	29.7	3.36	31.7	3.58	25.9	2.93	29.3	3.31	19.2	2.17	33.1	3.74	34.9	3.94
1/4-20	65.0	7.35	75.2	8.5	61.5	6.95	68.8	7.77	45.6	5.15	78.8	8.90	82.3	9.64
1/4-28	90.0	10.2	90.0	10.2	77.0	8.7	87.0	9.83	57.0	6.44	99.0	11.2	106.0	12.0
3/16-18	129.0	14.6	132.0	14.9	107.0	12.1	123.0	13.9	80.0	9.04	138.0	15.6	149.0	16.8
3/16-24	139.0	15.7	142.0	16.1	116.0	13.1	131.0	14.8	86.0	9.72	147.0	16.6	160.0	18.1

* These torque values are approximate and should not be accepted as accurate limits. Indeterminate factors in specific applications preclude the publication of accurate limits for universal use. Torquing values for screws made of various materials, and in sizes pertinent to this catalog, are offered as a guide. Test were conducted on dry, or near dry product. Mating parts were wiped clean of chips. Fastener tension is held at a factor somewhat less than yield point.

RECOMMENDED BY DICK PRETEL

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 19051 Underwood Road Foley, AL 36535 ☎: 334-943-4602 Fax: 334-943-4302
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