

## MORE POWER TO THE PEOPLE (improving EV performance)

At the March 16 Santa Clara chapter meeting we had a panel of experienced members reply to audience questions about EVs. Bob Schneevis started the event by telling about his Electrathon racer. It was a show and tell as it just fit on the table at the front of the meeting room. As a small one-passenger, go-kart, hot-rod, it is very impressive. Next, Dudley Lewis showed us a very fine (and simple) custom mounting device for the back end of a Prestolite motor. He also is giving out fab drawings of this.

Then the floor was thrown open to questions. A discussion about range and performance revealed wide variation. Chuck Olson gets 75-80 miles and Larry Burieschi gets about 45. A gentleman in the audience said that his '80 Datsun conversion could only give him 22 miles in combined city and hwy 237 commuting. He said that he drove it just like a gas car and ran his tires hard. (What pressure?) I asked him about his tires as Gene Fowler's studies have shown a 4-1 range in rolling resistance. He has 13" rims and, although he keeps the pressure up, they were not the good Grapplers or even Pirelli P8s.

Still there must be more problems with the lower range cars. What are they and how to fix them is not easy to determine. Basically, we have traditionally used trial and error. Think what it might be and try a fix. If it works---great. If not---try something else. Our efforts have been qualitative guesses, not quantitative hard facts pointing at the problems.

What we need for our membership is a way of instrumenting a vehicle to get hard numbers to show what is the trouble and by how much. To paraphrase Lord Kelvin unless you can quantify a problem, your knowledge of it is of a meager nature. If we can quantify the losses

from drag, rolling resistance, connector losses, etc., then we can attack those problems in priority rather than in a hit or miss fashion.

Therefore, I feel that we should try to come up with ideas as to how this can be done. This might take some costly equipment. Which makes it hard for the individual to do, but is just the thing for the for the EAA to provide as a service to its members.

With all of the technical talent out there in our membership, we ought to come up with a plan for this. I can envision the EAA using this test equipment to help solve EV performance problems and to build up a data base of typical energy use and performance characteristics for various cars. Then when someone asks "what's the best car to convert?" we could give some REAL numbers on energy use on different vehicles. After that information input, comes the subjective choice of the potential converter. But without any starting facts the whole decision is based on subjective choice.

This could be a real boon to our membership and it certainly helps in promoting EVs as a happy EVer is his own best salesman. If all our cars got more than 70 miles around town with reasonable performance then more people would want them.

Is this something the EAA should do? Is this a service we could provide for our members? How can it be done?

Give this some thought and call or write me. Especially if you have some thoughts as to how to construct the instrumentation we would need to do this.

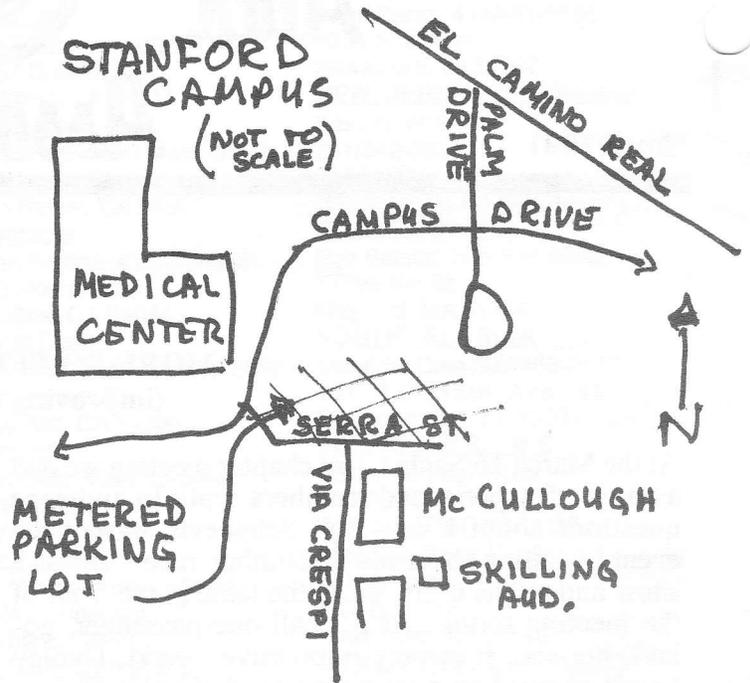
Paul Brasch, 1968 Elden Dr.  
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## FLYWHEELS

EAA members are invited to attend a Seminar on "Flywheels". Can a flywheel take the place of batteries?? Dr. Richard Post from Lawrence Livermore Laboratories will demonstrate and tell us what his studies show about state-of-the-art modern flywheel technology.

**TIME:** 4:15 PM, WEDNESDAY,  
APRIL 3, 1991

**PLACE:** Skilling Auditorium,  
Stanford University  
Palo Alto, CA



Last February, we published an article about EAA member Scott Cornell's electric VW Rabbit and Karmann Ghia. The newspaper photo accompanying the article didn't reproduce, but we wanted to show you the Cornells, and their cars.



EAA TREASURER'S REPORT FOR 1990

In case you're interested in EAA finances here is what you paid in, what we did with it and what was left at the end of 1990.

Balance forward 1/1/1990:		\$1612
Income: Dues and newsletter ads:	16715	
Interest:	143	
Expenses: Newsletter printing, mailing and membership--	----	16858
list maintenance:	-6872	
Dues rebates to chapters:	-3570	
Headquarters expense: Phone, copying, postage,		
Supplies, etc.:	-826	
Bank service charges:	-125	
Other expenses: refunds, liability insurance,		
bad checks, foreign check processing, etc:	-890	
	-----	-12283
		-----
Year-end balance:		\$6187

A significant increase in membership helped income and we managed to keep expenses from rising in proportion.

Our relatively healthy financial condition raises the question of how can we best use the surplus to promote the purposes of EAA? Here are some possibilities:

1. Hire a professional editor to improve the newsletter.
2. Hire a P.R. consultant to help us increase public awareness of EAA and to attract new members.
3. Advertise EAA in popular hobbyist and car magazines.
4. Pay members to write technical articles for the newsletter. What would it take (\$ per page) to get you to write an article?
5. Record members' conversion projects on video tape and make the tapes available to chapters and individual members.
6. Try to attract new members by reducing the annual dues.
7. Help chapters with worthwhile projects by granting them funds to cover some of the expenses.

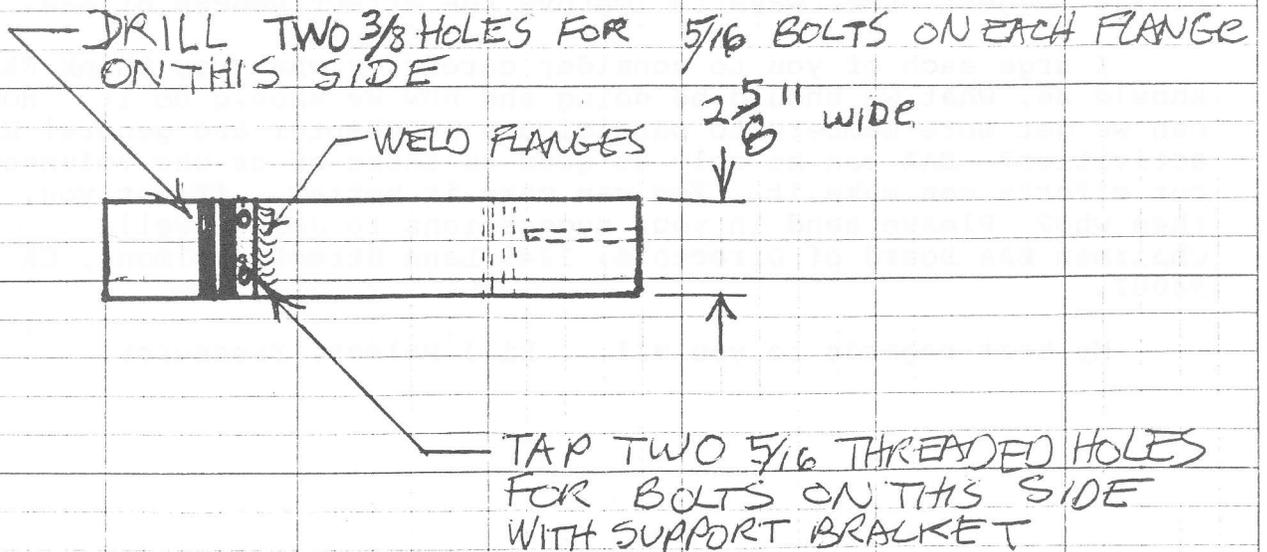
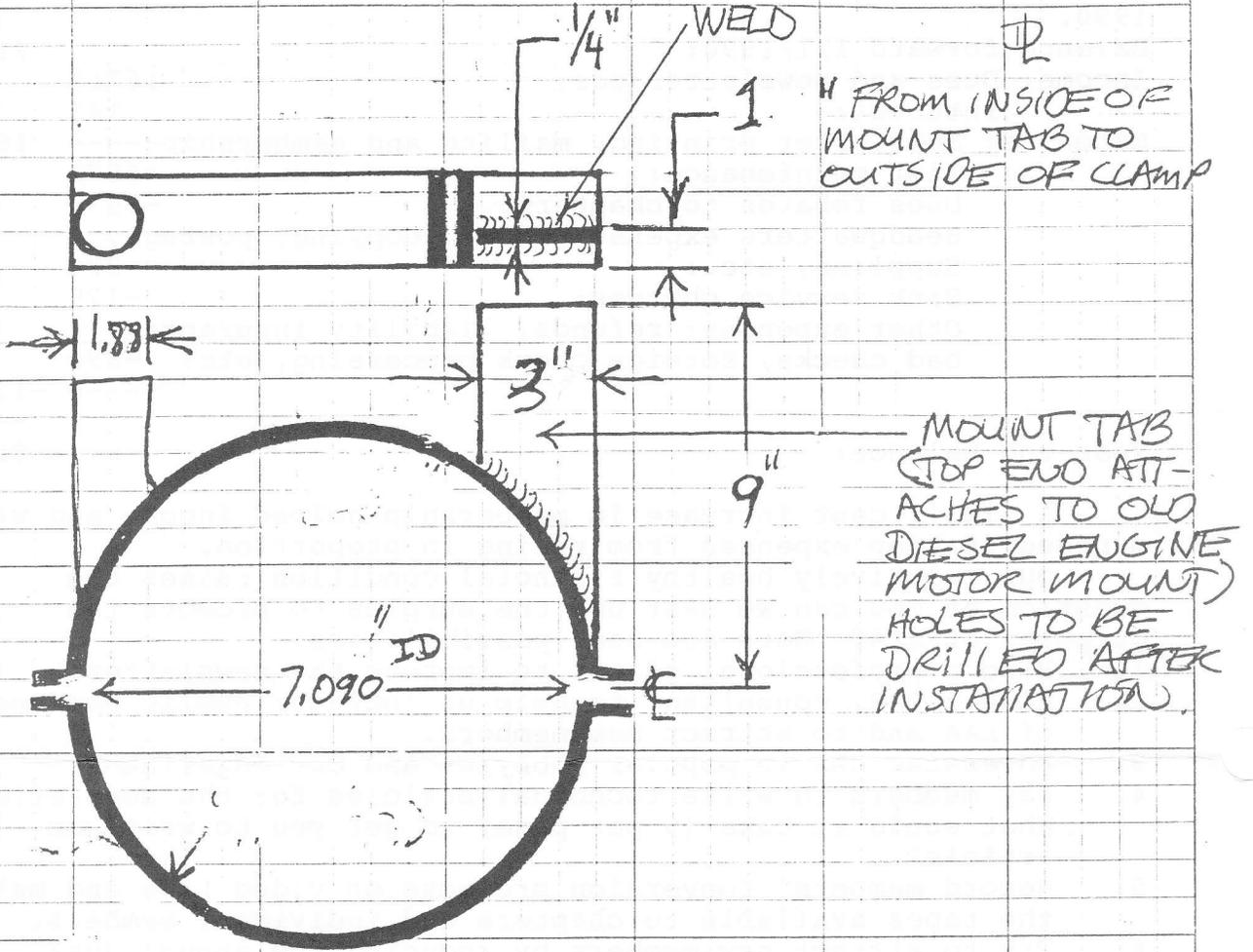
Please suggest other ways to improve the effectiveness of EAA.

I urge each of you to consider carefully what you think EAA should be, what we should be doing and how we should do it. How can we get more members to participate in chapter and general EAA activities? EAA can be only as good as those of us who volunteer our efforts can make it. You can make it better. If not you, then who? Please send in your suggestions to John Newell, Chairman EAA Board of Directors, 1249 Lane Street, Belmont, CA 94002.

My best regards to you all. Bill Palmer, Treasurer

# MOTOR MOUNT CLAMP

for Prestolite motor and VW Rabbit



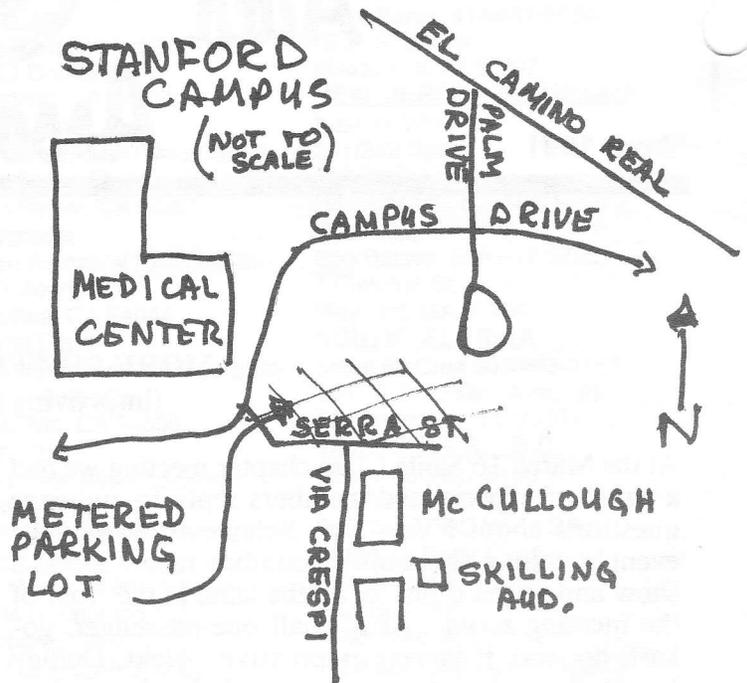
Thank you Dudley for this!

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# CALENDAR

**April 3, 1991** Richard Post speaking on Flywheels at Skilling Auditorium., Stanford University, CA  
**April 5-7, 1991** Solar & Electric 500; SERA, 11811 N. Tatum Bvd #3031, Phoenix, AZ 85028 602/953-6672  
**April 12-14, 1991** Eco Expo, Los Angeles, CA. 818/906-2700 or 800/334-EXPO  
**April 13, 1991** East Bay (CA) Chapter meeting, Robert Clark, "New Batteries for EVs"  
**April 15+, 1991** 4th Energy Forum, sponsored by BC Hydro, Victoria, B.C., Canada 604/987-8582  
**April 21, 1991** SunDay Challenge '91, Florida Solar Energy Center, Cape Canaveral, FL 407/783-0300  
**May 18, 1991** IEEE-SSIT Conference, San Jose, CA \$15 registration fee, Cindi Anderson, 408/285-2511  
**May 20-26, 1991** 3rd Annual Tour de Sol, sponsored by Northeast Sustainable Energy Assn. 413/774-6051  
**June 14-23, 1991** Lightwheels Festival 1991, Trade Show, Ride, Conference; NYC to Washington DC; 49 E. Houston St, NYC, NY 10012; 212/431-0600  
**June 17-23, 1991**, Save California Drive, Sacto-LA  
**August 3-9, 1991** Intersociety Energy Conversion Engineering Conference, Boston, MA 708/352-6611  
**August 4-5, 1991** Clean Air Revival. Solar Expo and Motor Sports Show. 55 New Montgomery St. San Francisco, CA 94608 415/495-0494  
**August 9-11, 1991** SEER 1991, Willits, CA (Final Round Electrathon Champ Trail)  
**August 18-22, 1991** 1991 ASME Int'l Computers in Engineering Conference, Marriott Hotel, Santa Clara CA  
**FOR SALE** 2 CM65C5 Aircraft Gen., 20kW 120 volt, 167 amp; spare (no brushes), Adaptor plate with bearings, 1971 Vega Hatchback with current registration, all for \$500 408/379-4022  
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**Weekdays Between 10AM-5PM PACIFIC TIME**

EDITORS: JOHN NEWELL, BILL PALMER, PAUL BRASCH, E.W. AMES  
 Send your chapter news, coming events, articles to the address below

**ELECTRIC  
 AUTO**



**NEWS**

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**Apr. 1991**

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