

CROSBY RESEARCH INSTITUTE

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September 27, 1973

Mr. Larry Crosby
170 North Robertson Blvd.
Beverly Hills, California 90211

Subject: EMA motor tests.

Dear Larry;

The following is a summary of pertinent data accumulated during extensive testing of the EMA motor by Pan World Enterprises Co., Ltd., and EvGray engineers between May 1 and May 10, 1973. Confirmation of input vs. output power efficiency was made by the undersigned and EvGray engineers on September 25, 1973.

The measured overall system efficiency exceeds 99%, utilizing the EvGray proprietary methods whereby additional electrostrictive power is developed, as well as the electro-chemical battery energy is recycled during the system operation. No external recharging generator was utilized during these tests.

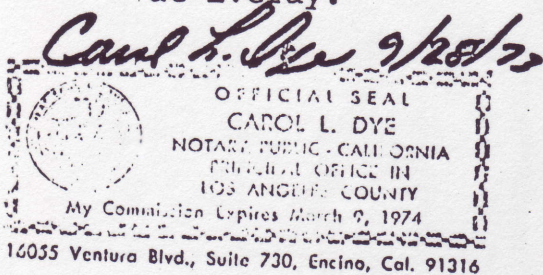
The EMA motor was operated into a 10 H.P. (48 ft. lb.) dynamometer load at 1,100 R.P.M. This power output is 7,460 watts. The total battery power available from the four batteries was 5,454 watts for one hour. The total battery power consumed by the motor during a 21 minute run was only 9.75 watts; this equals 26.8 watts per hour.

The system will operate continuously for 203 hours or 8.5 days, at 10 H.P. and 1,100 R.P.M., with the four batteries, without recharge. Recycling of the batteries during non-operational periods would permit continuous system operation until the end of the battery life.

Battery life when operated on the high energy pulse, electro-chemical recycling mode has not been determined. A conservative estimate of 2 to 3 year battery life seems reasonable.

The EMA system will alter the future concepts of energy use.

Tests reports supporting the above information is available at EvGray.



Regards,

J. A. Maize
J. A. Maize
Director of Engineering