

Milwaukee Section News

VOLUME 04, ISSUE 2

editor: mark.d@email.sae.org

FEBRUARY MEETING

Wednesday, 18-Feb-2004



--- EVENT AGENDA ---

Registration:

5:15pm 5:30pm

Dinner:

6:30 & 7:15pm (repeat)

Presentation: Tour - grp#1:

6:30pm

Tour - grp#2:

7:15pm

Wrap-up

8:00pm

PROGRAM:

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- ♦ talk: BATTERIES & DRIVE TRAIN DESIGN for 42-Volt & other HYBRID VEHICLES
- ♦ tour: JCI Test Lab, Johnson Controls' facility
- ♦ see two hybrid vehicles, Honda Civic and the new Prius on-site
- **♦** Automotive Technology

Johnson Controls Battery, Inc., affirms they are North America's largest supplier of lead acid batteries. With world-class product design and manufacturing systems, they ensure that customers receive the highest quality products available. JC Batteries consistently outperform the competitors in fleet and laboratory testing - and are manufactured to be the longest lasting battery, period.

Just being the best isn't enough at Johnson Controls. They focus on continually improving product design and performance in their state-of-the-art Battery Technology Center, thereby ensuring that customers across the continent always receive the highest quality, guaranteed.

Location: Johnson Controls Battery, Inc.

5757 N Green Bay Ave Glendale, WI 53209 phone: 414-524-1200

--- **DINNER** ---

MENU:

Selection of either Beef Wellington or Chicken Cordon Bleu, dinner vegetable, garden salad, rolls, dessert, and beverage selections.

COST:

SAE Members / spouses:	\$18.00
Retirees:	\$15.00
Guests / Non-members:	\$22.00
Students w/ID	\$10.00

Registration:

Dinner reservations must be received the week before the event. Charge card payment can only be collected on line, via http://milwaukee.sae.org. Register using email at: milw-sae@wi.rr.com, or phone: 414-465-6722, then pay at the door. "No-shows" with reservations will be billed. 50-Year members entitled to 1 free dinner annually.

Registration deadline: 2:00pm – Friday, Feb 13th

Topic: Speaker:

Batteries & Drive Train Design for 42-Volt & other Hybrid Vehicles Thomas J. Dougherty, Director - Advance Battery–Hybrid Systems

Mr. Tom Dougherty has thirty-three years of experience working with batteries and electric vehicle development. He has also built 4 electric cars.

The SAE presentation will include a technical discussion of the hybrid market from the simple idle stop/start systems to the full series hybrid vehicle in the market today. The speaker's discussion will cover the different drive trains and batteries used for these vehicles.

Tom has been with Johnson Controls Inc. for his entire career in the design, development, manufacture and marketing of Lead Acid batteries. His most recent assignment is the development of battery systems for hybrid applications.

Some of Tom's achievements:

- 40 patents, with the most recent patent on a new internal combustion engine with floating pistons
- Numerous papers on battery systems and battery design, including a recent paper on battery modeling and monitoring in dynamic vehicle applications for the MIT 42 volt Consortium.
- Presentations to the SAE TOPTEC program
- Past member of IEEE and NEMA, and served as chairman of battery subcommittees for both
- BS in Chemistry from University of Wisconsin Oshkosh, Graduate work at Keller

March 11 Meeting Competing in the World Marketplace for a Healthy US Economy – Milw April 21 Meeting tour: FORD & Daimler-Chrysler Training Center, MATC North – Mequon May Meeting (tentative family event) AWIM - A World in Motion@Discovery World – Milw June 3-6, SAE Mini-Baja 2004 S.A.E. Midwest Mini-Baja competition – Waukesha

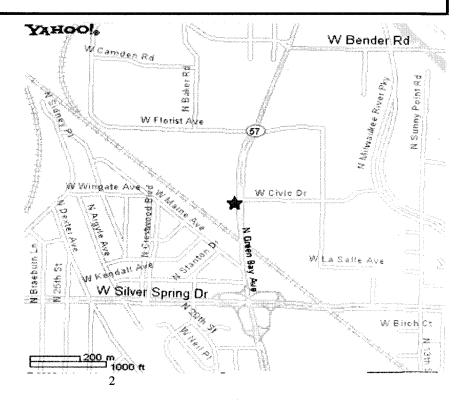
Upcoming Events

MAP: Johnson Controls, 5757 Green Bay Ave, Glendale, WI 53209

PARKING

- Turning off of Green Bay Road into the JCl parking lot.
- Park anywhere to the left side.
- Don't park down on lower level.
 (don't turn right)

You can learn more at the company's website www.johnsoncontrols.com



Milwaukee Section 2002-2003 **Governing Board**

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Alt SECTION DELEGATE:

(open)

- Chairman's Note -

Thank you DeltaHawk for a great presentation on innovative jetfueled diesel aircraft engine technology. The EAA Chapter 838 Building at the Southwest Wisconsin Aircraft Museum was a great venue to use for our discussion of this new aviation powerplant.

Doug Doers, DeltaHawk's vice president and lead engineer, shared many details on the engine, from early concepts and challenges to present successes, including ground-test and flighttest performance data. We saw DeltaHawk's first-flight video, and later witnessed the 160-hp DeltaHawk engine rev-up on its testbed, the experimental Velocity RG. (It was just 10 degrees outside!)

Doug highlighted the engine's supercharger, which backs-up the turbo-charger. This provides for mechanical redundancy on the engine and therefore greater safety. DeltaHawk also welcomes you to tour their facility. To make an appointment call 262-634-9660, or learn more at www.deltahawkengines.com. I shared with the crowd that DeltaHawk has some serious potential!

This past week we were proud to share news of a significant influence to our engineers of the future, which was promoted through the SAE Foundation's "A World in Motion" program at Country Dale School, in Franklin. Board members Dennis, John, Wayne, Tim. and Lioined Tom Derenne, Education Prog. Mgr., Discovery World Museum, and Liz Sutton, Community Education Coordinator in a hands-on teacher training, kid-assisting program. We all had a great time helping the kids design, construct, and testrun Challenge 1 Series toy, jet-cars. Simply talking with my fifthgrade daughter's teachers about AWIM, then with the wonderful support offered, made this happen. We received many thank you's.

Members, please learn more about the FREE AWIM kits available for classrooms, awim@sae.org Also, see page#5 for info.

- Student Members and Faculty Advisors: your Section can again receive financial assistance for SAE projects in support of your Chapter. Please contact Dr. Lumkes or me for more details.
- Engineers & Scientists of Milwaukee (ESM), will be sponsoring the 51st Annual National Engineers' Week Banquet, Feb. 24th, at the Italian Community Center. For more details contact George Walker 262-521-5641, or george.walker@berbee.com.
- Explore the newly revised SAE website, www.sae.org you may impressed with some of the updated features, benefits, and services available. Be sure to invite other non-members to do this, too. Direct them to the Membership tab, and FAQ's to learn more.

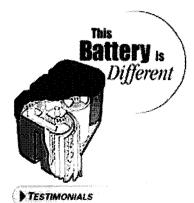
We're striving to be significant for you, and your industry! Share your thoughts with us!

Dale Wiza, & your Milwaukee Section Board

SPIRALCELL® Technology

Inside this unusual battery is a six-pack of SPIRALCELL TECHNOLOGY®. Traditional batteries have a stack of thick lead plates surrounded by acid. But OPTIMA® batteries feature two thin lead plates wound into a tight spiral cell, with an absorbent glass-mat in between to hold the electrolyte solution. This unique design allows for more power and increased energy, resulting in quick, reliable starts. OPTIMA batteries are the first and only batteries to feature SPIRALCELL TECHNOLOGY.

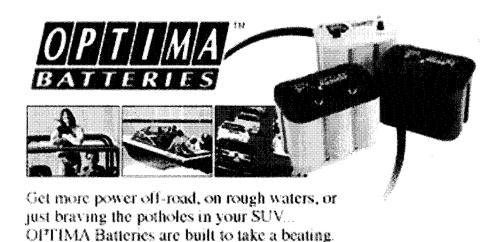
- It'll last up to 2 times longer than other batteries.
- It can sit unused 3 times longer than other batteries.
- It is over 15 times more resistant to vibration than other batteries.
- It's nonspillable and can mount in almost any position.
- It provides constant performance quality keeping your battery running at the same level even as it's being discharged.
- It provides more power in the inital 1, 3, 5, and 10 seconds of the vehicle starting process than comparably rated conventional lead acid batteries.



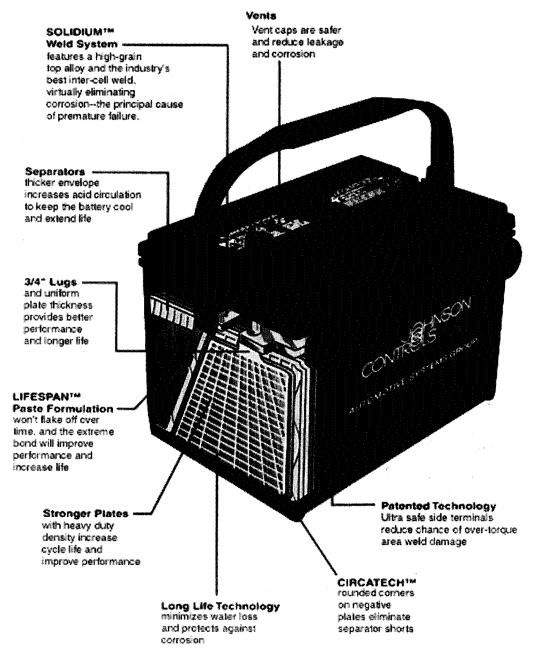
SuperBowl ties and trivia...

Technical Metal Specialties, a local Milwaukee manufacturer and custom seating designer, recently installed seating for a new Sieman's light rail system in Houston, TX, just in time for SuperBowl 38! These systems incorporate stainless steel frames and shrouding with easy mounting and high comfort, and are safety tested to 5G's. They have produced systems for D.C., San Diego, Fort Worth, Chicago, Canada and abroad. Way to go in getting out Milwaukee's great name, Technical Metal Specialties!

Share a highlight of your firm, to dale@engineeringplacements.com



The Ultimate Power Source.™



Meeting Sponsorship

We wish to thank the following organizations for their continued support of the Milwaukee Section:

Harley-Davidson Motor Co [Milwaukee] Modine Manufacturing Co [Racine]

For more information on becoming a sponsor, please contact any section board member.

Keep current with us on these SAE web sites:

http://milwaukee.sae.org for the Milwaukee Section or the national site at milw-sae@wi.rr.com

For more information on **A World In Motion** call: 724-772-8514, and ask for Darlene Geweth email: awim@sae.org internet: www.sae.org/foundation.awim

Please print and post the following ad for next month's meeting!

(Details to be published in next month's newsletter)



Society of Automotive Engineers - Milwaukee Section Presents

"Competing in the World Marketplace for a Healthy US Economy"

Featuring insights from different perspectives:

Jerry Skoff – founder of SAMNow (WI chapter-Save American Mfg)
and

Philip Styrlund – expert on building resilient organizations (and implementing value transformation charges for premiere organizations)

- What is the reality of the world economy?
- How is this affecting business here in the United States?
- Can we save jobs, maintain integrity, and still prosper?
- What can SAE members do to compete and successfully contribute to the U.S. economy in a global marketplace?

Transportation, communication, efficiency, increased development, capacity, trade laws, politics, technology, education, demand for imported goods... all have driven changes in our society. During the past 100 years, SAE members and the industries that they serve, have contributed to many of these factors – factors that shape many business decisions today. What might the next 5 years look like, and how do we plan for the change? What leadership role will we take?

Please join us at Klemmer's, <u>March 11, 2004</u>, 5:30pm, for our business dinner meeting featuring two very dynamic speakers, and this important theme.

(Pre-Registration required: http://milwaukee.sae.org)

Jerry Skoff, is the President of Badger Metal Tech (www.samnow.org) Philip Styrlund is Pres. of Summit Group, Inc. (www.summitvalue.com)

Klemmer's Banquet Hall, 10401 West Oklahoma Avenue • Milwaukee, WI • (414)541-0401