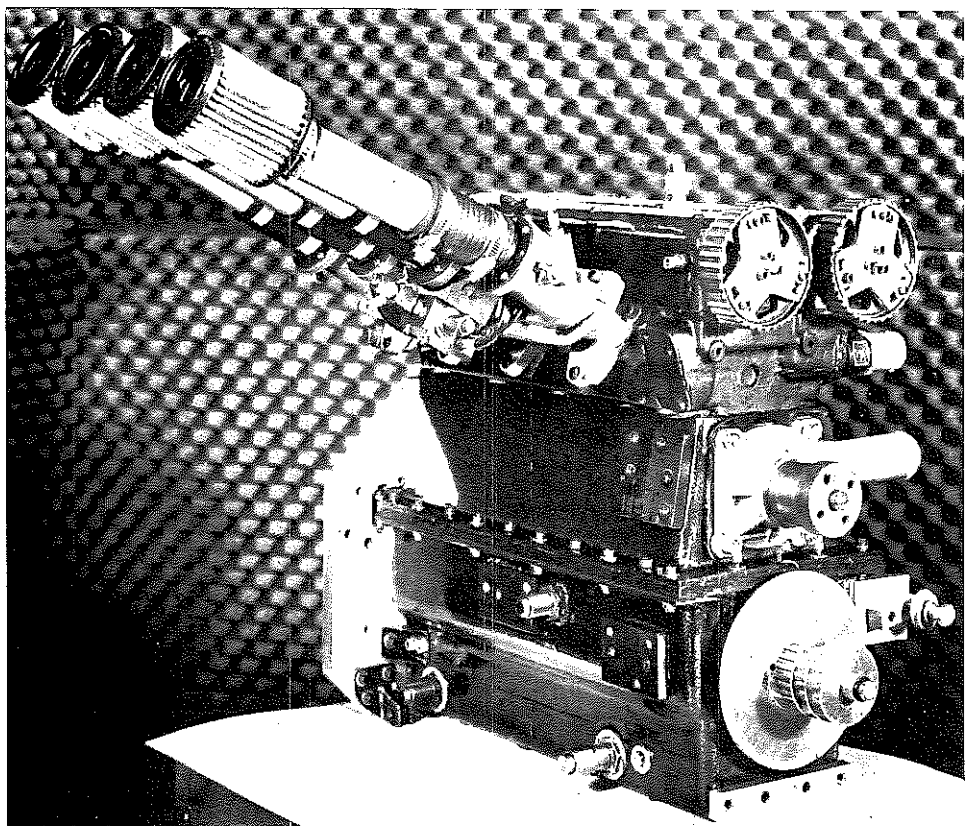


SAE CHICAGO SECTION **NEWS**

VOL. 53

NO. 4

APRIL, 1985



**FOUR CYLINDER PLASTIC ENGINE
A LOOK AT THE FUTURE**



CHICAGO SECTION

NEWS

Published by CHICAGO SECTION, SOCIETY OF AUTOMOTIVE ENGINEERS

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VOL. 53

APRIL, 1985

NO. 4

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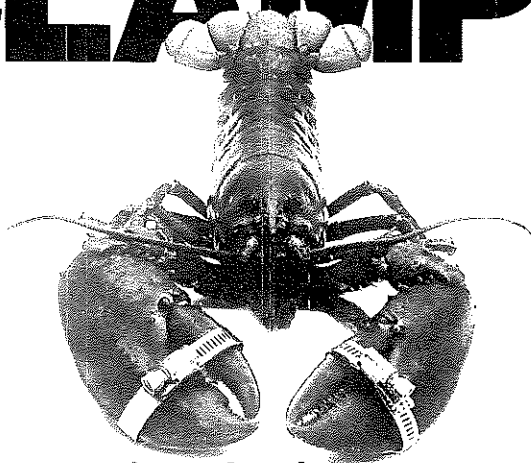
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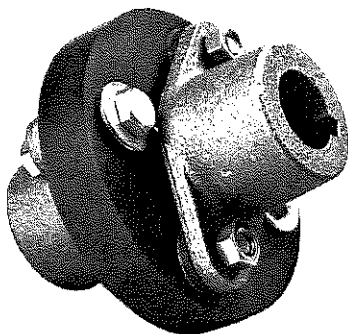
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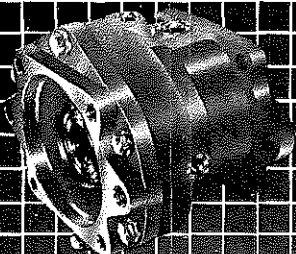
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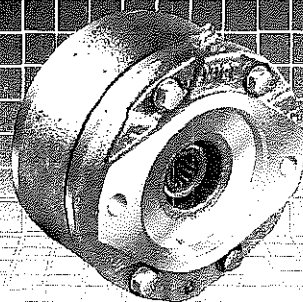
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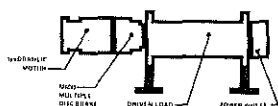
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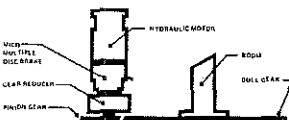
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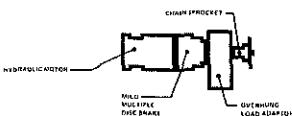
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SAE ACTIVITIES –Chicago Section

The entire Chicago Section expresses its appreciation to the following members who worked hard to insert the Chicago Auto Show tickets in the February, 1985 issue of the "News".

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W. F. LINDSEY

G. F. LOEBBAKA

R. B. PORTER

K. L. WOLFGRAM

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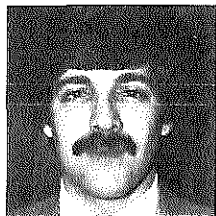
THANK YOU!!



The Chicago Section extends its appreciation to **Charles O. Probst**, President, Cybern Systems Company for his generous offer of his automotive instruction books. A valuable addition to everyone's library.

FOX VALLEY DIVISION
SAE Chicago Section
TUESDAY, APRIL 23, 1985

SPEAKER



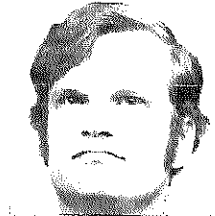
MILAN E. ZLOCK

SPEAKER



J. D. MICHAELS

CHAIRMAN



F. B. HARMAN

INTERNATIONAL HARVESTER — 6.9LD V8 DIESEL ENGINE
BY
MILAN E. ZLOCK
SPECIAL GUEST SPEAKER — J. D. MICHAELS

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MILAN E. ZLOCK is chief engineer of light-medium duty engine development at International Harvester. He holds a B.S.M.E. from Penn State University.

JACK D. MICHAELS is Executive Vice President, Worldwide Engineering and Planning for the J. I. Case Company.

BRENT HARMAN is a Senior Staff Engineer for J. I. Case. He holds a BSEE and MBA from Illinois Institute of Technology.

AURORA INN

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5:30 P.M. Social Half Hour

6:00 P.M. Dinner

7:00 P.M. Tech. Session

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SPEAKER



ERNEST P. GAUDETTE

CHAIRMAN



TERRY WOOD

**PLASTICS WITHIN
COMBUSTION**

B
ERNEST P.

A high strength, lightweight polymer has been developed which is under development as a component material. First used in a motor, the polymer has been successfully tested in engine components and has operated without failure. The design, development and use of this material will be discussed.

ERNEST P. GAUDETTE is a Senior Engineer, Amoco Chemicals Corporation, Chicago. He provides engineering support for Torlonia plastic. Often replaces metal, this involves the replacement of metal components. Successful applications in several major areas of agriculture and automotive.

Gaudette joined Amoco Chemicals in 1964. He worked for Pratt & Whitney Aircraft, General Electric Company, Cincinnati, Ohio, where he was a Senior Engineer. He is a member of the American Society of Engineers, the Society of Plastics Engineers, and the Society of Automotive Engineers. He has a Master's degree from the University of Massachusetts and has done graduate work at Hartford Graduate School.

TERRY WOOD is a Project Engineer in the 649 Engine Series in the Propulsion Engine Division in Hartford. He has been involved in agricultural mechanization from 1964 to 1970.

PLASTIC PARTS WILL BE C

CHICAGO SECTION APRIL 9, 1985

THE INTERNAL COMBUSTION ENGINE

GAUDETTE

polymer (a polyamide-imide) has
development as an engine
in the "plastic engine" the poly-
ed in a number of engine com-
in a high performance racing
ent and future application of

Design Engineer with Amoco
o, Illinois. He is responsible for
® applications. Since Torlon
ves analysis and redesign of
projects have been completed
or industries such as aviation,

chemicals in 1981. Previously, he
craft, E. Hartford, Connecticut
pany, Jet Engine Group, Cin-
member of the Engine Design
merican Society of Mechanical
cs Engineers, and the Society
olds a BSME degree from the
Amherst, and has done grad-
e Center.

engineer responsible for the 433
uct Engineering at Allis-Chal-
ey, Illinois. He holds a BS in
n Purdue University.

ON DISPLAY.

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AND

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6:00 P.M. Dinner

7:00 P.M. Technical Session

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**MICHIANA DIVISION
SAE Chicago Section
TUESDAY, APRIL 23, 1985**

**SMOKE VISUALIZATION
THE PATH TO AERODYNAMIC DISCOVERY
BY
THOMAS J. MUELLER, Ph.D.**

There has been a great interest throughout the history of aerodynamics in making flow patterns visible. This history includes smoke visualization by L. Mach in 1893 and the work of F.N.M. Brown. This history along with a description of the state-of-the-art of subsonic and supersonic smoke visualization and results of studies of land vehicles, airfoils, missiles and spinning baseballs will be presented.

Thomas Mueller is Professor of Aerospace and Mechanical Engineering at the University of Notre Dame and has been with the school for 19 years. He has held positions in industry and the scholastic world. His specialty areas are: the gas dynamics of separated flows, numerical methods for compressible and incompressible fluid mechanics, propulsion aerodynamics, flow visualization, and biofluid mechanics.

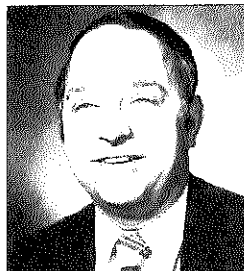
Raymond Kosarski, Jr. is a Project Engineer at Allied Corp.—Bendix. He has been with the company for 18 years and has held a number of different positions relating to vehicle brake systems.

SPEAKER



THOMAS J. MUELLER

CHAIRMAN



RAYMOND KOSARSKI

**MORRIS INN
Notre Dame**

**Tour at ND Aerospace Lab
See map on opposite page**

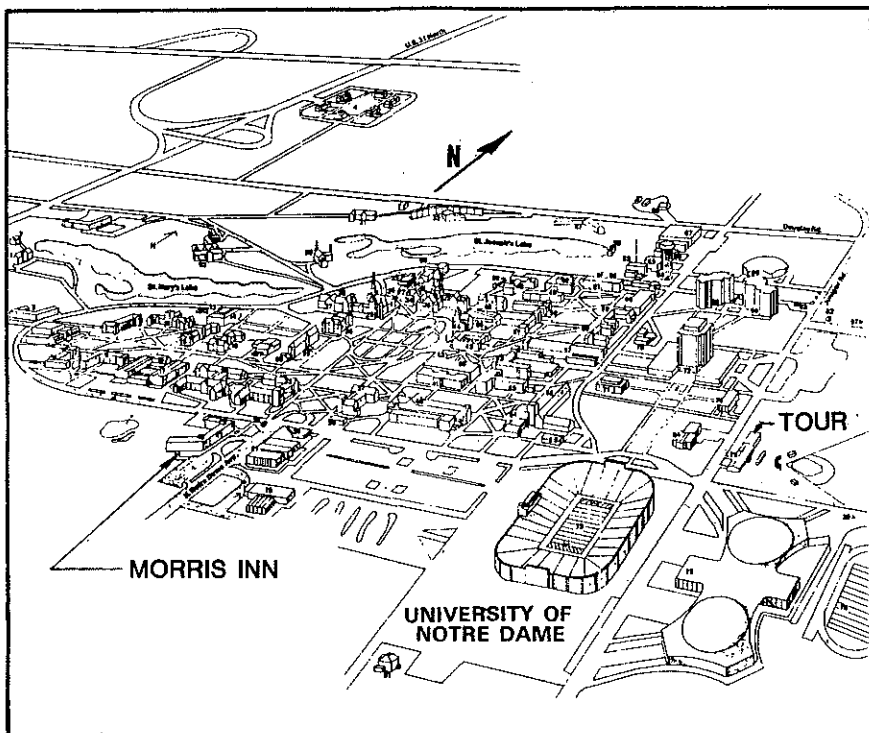
**5:15 P.M.—Tour
6:15 P.M.—Social Period
6:45 P.M.—Dinner
7:45 P.M.—Technical Presentation**

**Student Support:
Hydro-Components R & D Inc.**

**Reservations:
Anthony Metoyer
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**Deadline: 4:00 P.M. EST
Thursday, April 18, 1985**

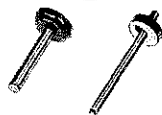
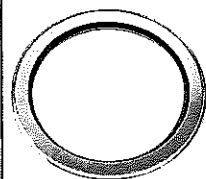
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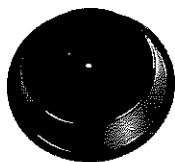
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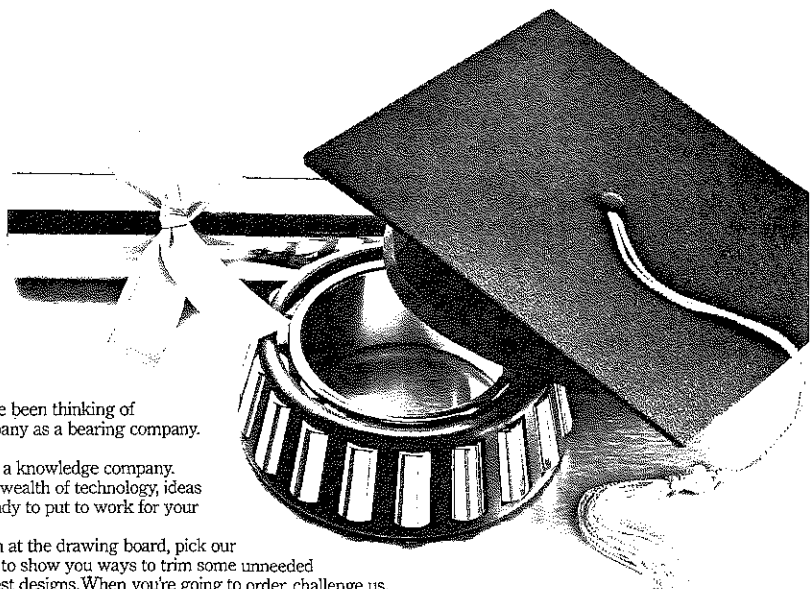
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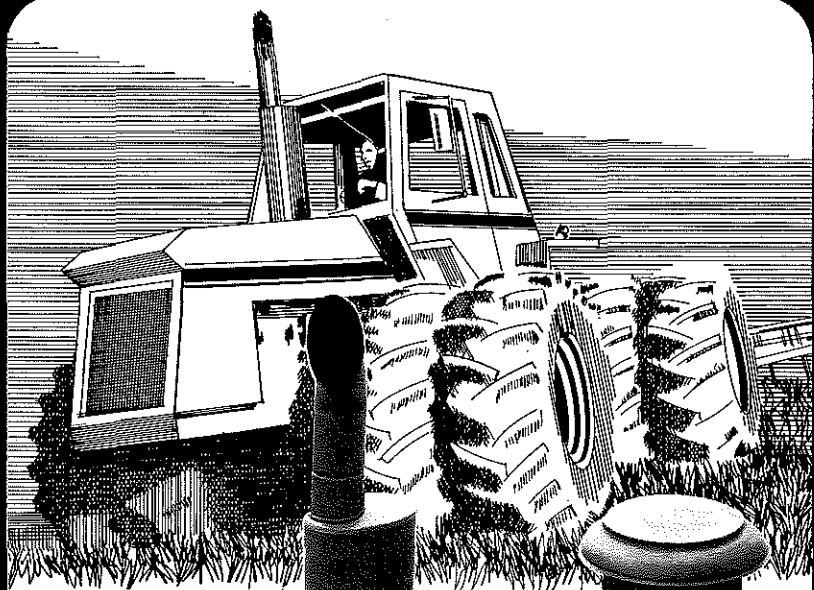
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SAE — Chicago Section

1984-1985 Meeting Dates

Date	Group	Subject
1984		
10-9	Chicago	SAstudent Activities—AMC Racing (Jeeps/Renaults)
10-17	Fox Valley	Chrysler Laser Car
10-23	Michiana	Robots
<hr/>		
11-8	Fox Valley	Experimental Stress Analysis in the '80's . . . and beyond
11-13	Chicago	Mack Truck—16.4 Litre V-8 Engine
11-27	Michiana	Ford Aerostar
<hr/>		
12-6	Fox Valley	Caterpillar 3500 Series Engine
12-11	Chicago	Fisher Body Plant Tour; Meeting at Willowbrook
<hr/>		
1985		
1-8	Chicago	Mini-Seminar on Bearings
<hr/>		
2-12	Chicago	Robotics at General Motors; A Look at the Future
2-19	Fox Valley	Phasedown of Lead in Gasoline
<hr/>		
3-12	Chicago	Engine Oil Classification System
3-19	Fox Valley	Caterpillar 936 Wheel Loader
3-26	Michiana	Miles Laboratory
<hr/>		
4-9	Chicago	Advanced Technology, Plastic Engine
4-23	Fox Valley	International 6.9 Litre Engine
4-23	Michiana	Ethanol Plant
<hr/>		
5-14	Chicago	Transportation Equipment

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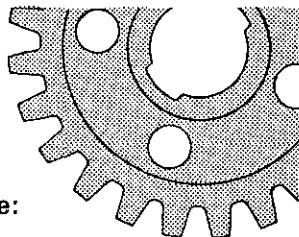
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