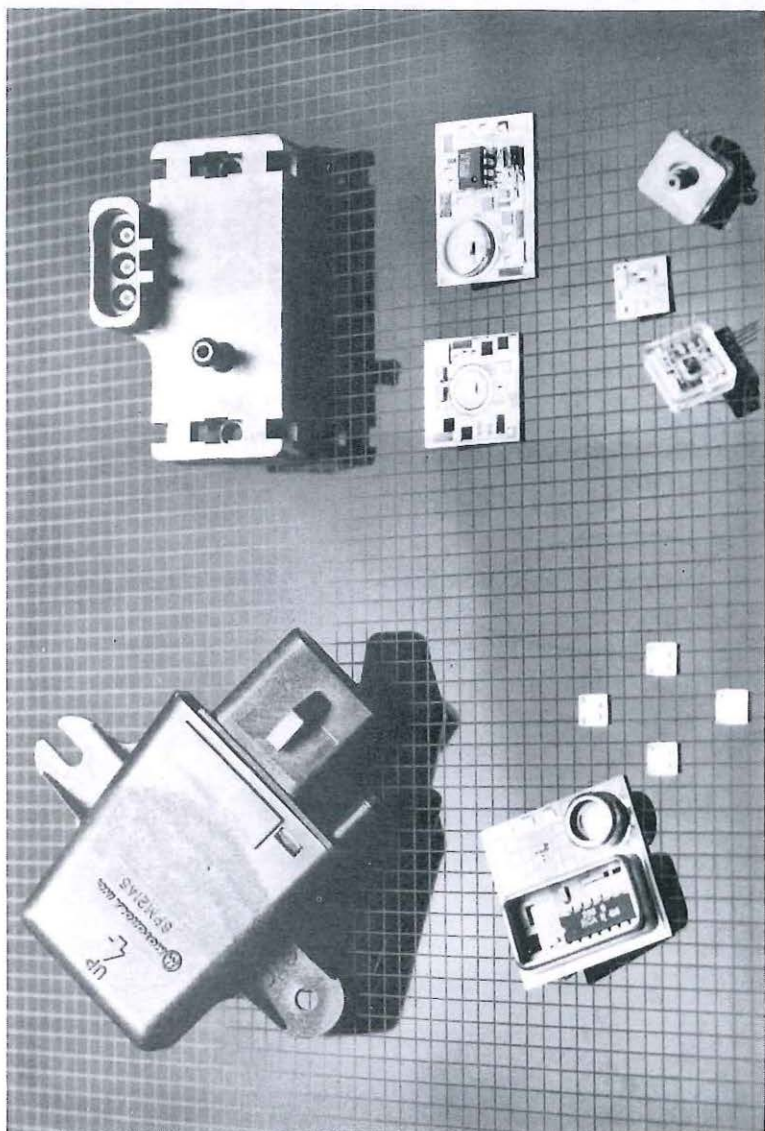


SAE CHICAGO SECTION NEWS

VOL. 54

NO. 5

MAY, 1986





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With a few small exceptions, a company called TRW builds steering systems for everything on wheels. From garden tractors to mammoth earth movers, we can supply your needs.

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CHICAGO SECTION Chairman's Message



I wish to thank the Section and Division officers and Governing Board members for making this past year's programs successful. All the planning and preparation by the officers and board members would be of little value if the members did not attend Section and Division meetings.

Success of the 1985 Truck and Bus Meeting was in part due to the members who volunteered to serve on the committee and those who attended the technical sessions and the banquet.

The life blood of any organization is new members--each one of us should try to sign up one qualified associate or acquaintance employed in the mobility field. We should encourage younger engineers to become involved and help prepare them to carry the SAE banner in future years.

Sincerely,

Charles F. Cervenka

Charles F. Cervenka
Chicago Section Chairman

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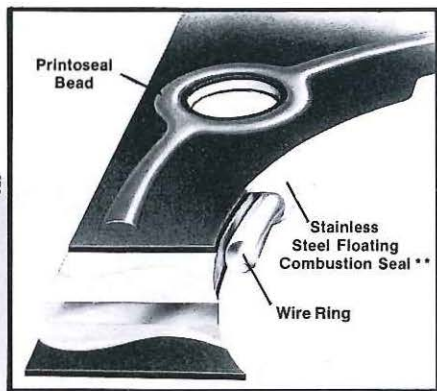
SAE Technical Paper Series

840188

Designing and Testing Cylinder Head Gaskets for High Performance Sealing

Daniel E. Czernik

Fel-Pro Inc./Felt Products Mfg. Co.



International Congress
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Detroit, Michigan
February 27-March 2, 1984

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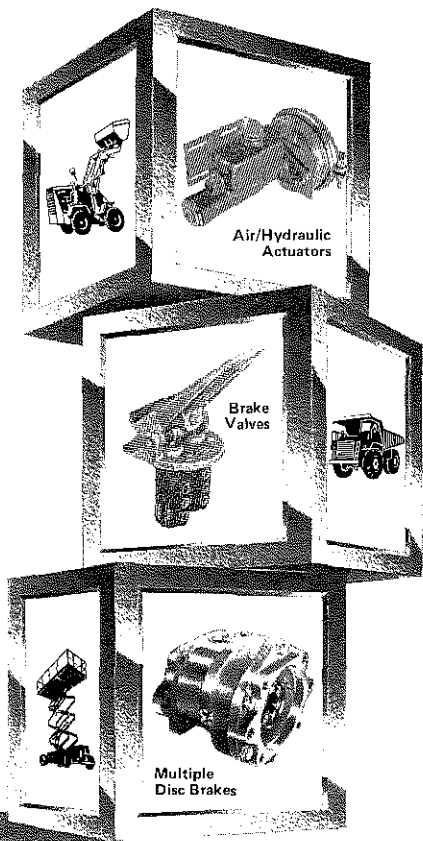
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SAE ACTIVITIES

CHICAGO SECTION—FEBRUARY 11, 1986



Tony Vering discusses the many good things that SAE has to offer, and urges members to contact as many as possible to join up.



Chuck Cervenka, left, discusses programs, problems and strategy with **Ken Wolfram**, right, who will guide the Chicago Section as Chairman for the 1986-87 year.

Find a way to meet diesel engine designers' needs for more efficient, smaller fuel injection nozzles.

STANADYNE INNOVATED THE WAY:

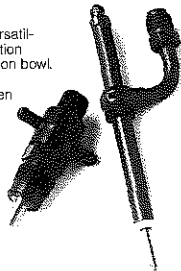
Typical nozzle spray pattern.

A Revolutionary 9.5mm Nozzle Plus Our Unconventional Conventionals.

Only 9.5mm in diameter, our unique Pencil Nozzle™ is smaller and provides more engine design versatility than conventional types. This small size affords better engine cooling; variable inlet configurations and body lengths make it adaptable to numerous engine configurations. It has been proved on over 50 different engine models.

Now, a new 5.4mm diameter Slim Tip model designed especially for small, high speed D.I. engines is available. Benefits to engine designers include:

- Improved versatility in tip location vs. combustion bowl.
- Allows more metal between valves, or larger valves.
- Compression seal at tip shoulder aids air-cooled installations.



- Small frontal area reduces heat input.

We also offer conventional nozzles and holders in 21mm and 17mm sizes; hole or pintle type. Whatever your diesel injection system requirements, we welcome the opportunity to help optimize your engine designs. Stanadyne Diesel Systems Group, P.O. Box 1440, Hartford, CT 06143 U.S.A. Phone: [203] 525-0821.

Stanadyne diesel systems

SAE ACTIVITIES



Mike Thompson picks a winner.



Tony Yering pins a winner — A New SAE Member.

SAE ACTIVITIES –Chicago Section

Two veterans of the annual Ladies Nite and Play Day activities discuss strategy and execution on how to improve these outstanding social and competitive events. **Hank Weatherhead** on the left, **Neal Anderson** on the right.



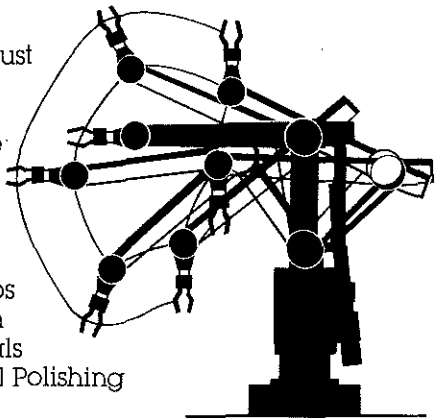
If you missed the Ladies Nite program on March 15, 1986 plan to make it September 4, 1986 for Play Day and Golf Outing at St. Andrews and Barlett Hills.

Don't miss all the fun, fellowship, and prizes.

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John Campana
Applications Engineer

TUESDAY, M

SPEAKER



PETER SHAK

CHAIRMAN



RAYMOND L. JENKS

**AUTOMOTIVE PR
THE APPLICATION
SEMICONDUCTO**

PETER

Semiconductor and hybrid process pressure sensors for intake manifold and other vehicle applications. The to provide more reliable and accurate to increase. High volume manu capacitive, and ceramic capacitive s petus and learning curves for this su technologies and their application a strengths of each.

PETER SHAK is Engineering Man in Schaumburg, Illinois. He holds a city of New York at Buffalo. Shak is and development of pressure senso and heavy duty applications. He is a Society of Hybrid.

RAYMOND L. JENKS is Account S at Motorola in Schaumburg, Illinois School of Management.

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"GUESTS WELCOM**

CHICAGO SECTION

MAY 13, 1986

PIEZORESISTIVE PRESSURE SENSORS: THE USE OF HYBRID AND MEMBRANE TECHNOLOGIES

**BY
DR. J. SHAK**

Techniques are used to manufacture engine oil, diesel fuel, transmission, use of sensors in place of switches to provide information at low cost continues. Manufacturing of piezoresistive, silicon sensing elements has provided the impetus. A comparison of these different sensors shows similarities and the unique

Manager for Sensor Products at Motorola. He received a BSSEE degree from the State University of New York, currently responsible for the design of sensors for massed air flow for automotive applications. He is a member of SAE and the International

les Manager, Automotive Electronics Division. He holds a MBA from Lake Forest

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AND

IRVING PARK ROAD (ROUTE #19)

5:30 P.M. Social Half-Hour

"ATTITUDE ADJUSTMENT HOUR"

6:00 P.M. Dinner

7:00 P.M. Technical Session

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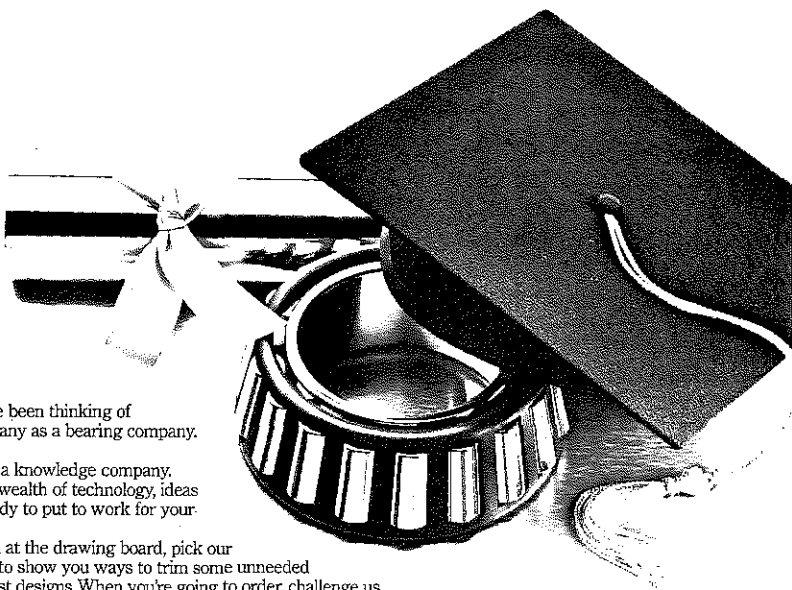
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SAE ACTIVITIES

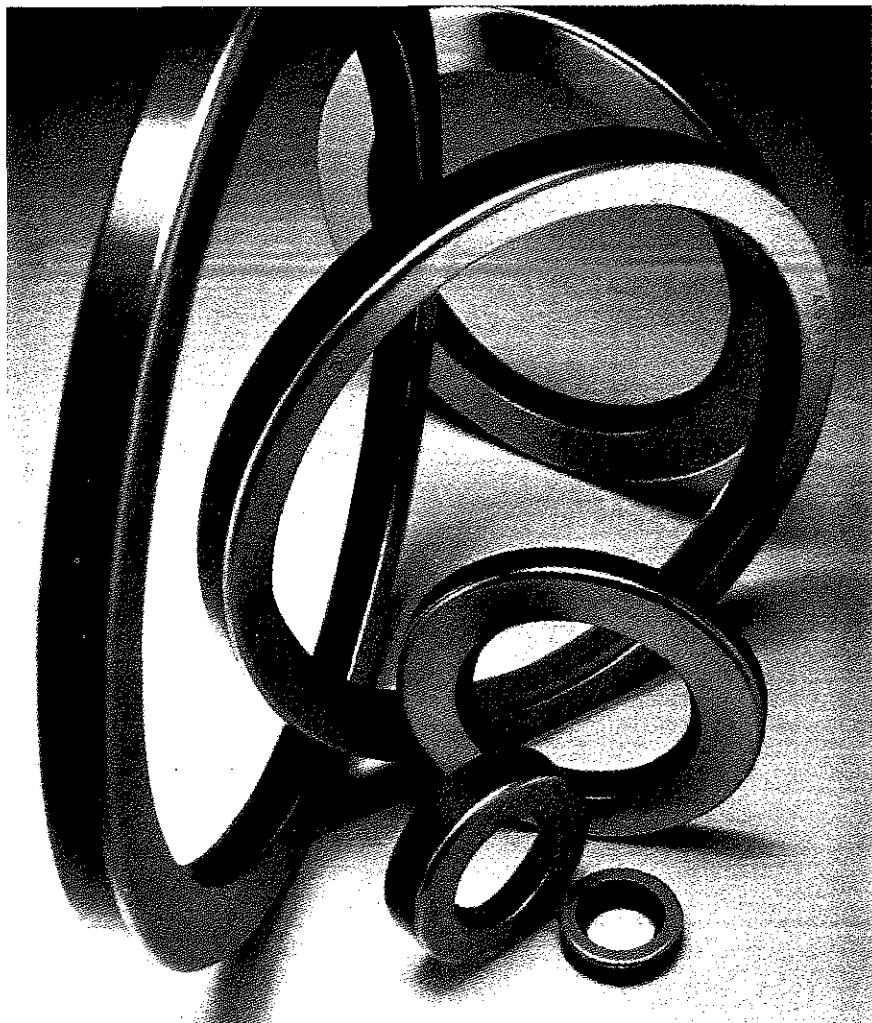
CHICAGO SECTION — FEBRUARY 11, 1986



Manfred Schlebusch, Robert Bosch, GMBH, explains how high pressure injection pumps for heavy duty diesel engines operate with electronic controls.



John Damusis tells how things are done in China as he presents an illustrated trip to the Far East.



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CR Seals

SAE ACTIVITIES
CHICAGO SECTION—FEBRUARY 11, 1986

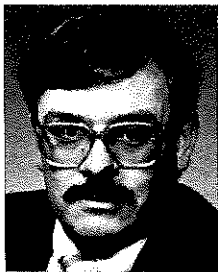


Richard J. Kozerski presides as Tech Chairman.



Everybody digs in at the dinner table counter. Why not volunteer and dig in for other interesting and stimulating SAE activities.

NOMINEES FOR SECTION OFFICERS
SEASON 1986 - 1987



K.C. WOLFRAM

For Chairman
K.C. WOLFRAM
CATERPILLAR TRACTOR CO.



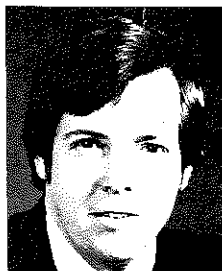
M.R. FERNANDEZ

For Vice Chairman
M.R. FERNANDEZ
FRAM CORPORATION



JOHN DAMUSIS

For Treasurer
JOHN DAMUSIS
DANA CORPORATION



THOMAS J. OWEN

For Secretary
THOMAS J. OWEN
CR INDUSTRIES



J. DAVID CARLSON

For Chairman
Fox Valley Division
J. DAVID CARLSON
ELGIN SWEEPER CO.



SHIRLEY BORDEN

For Chairperson
Michiana Division
SHIRLEY BORDEN
ALLIED CORP.

NOMINEES FOR SECTION OFFICERS

SEASON 1986 - 1987



F. BRENT HARMAN

*For Vice Chairman
Farm, Construction,
Industrial Equipment*
F. BRENT HARMAN
CASE I H

*For Vice Chairman
Parts & Accessories*
RICHARD J. KOZERSKI
DANA CORPORATION



RICHARD J. KOZERSKI



JOHN DEN BESTEN

*For Vice Chairman
Power Plant*
JOHN DEN BESTEN
NAVISTAR

*For Vice Chairman
Student Activities*
GEORGE REZEK
NAVISTAR



GEORGE REZEK



GEORGE F. RAAB

*For Vice Chairman
Transportation Equipment*
GEORGE F. RAAB
NTN BEARING CO.

*For Vice Chairman
Advanced Technology*
RAYMOND JENKS
MOTOROLA, INC.

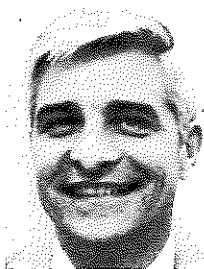


RAYMOND JENKS

Since no opposing slate of candidates has been submitted by a Special Nominating Committee, the election of the slate of officers proposed by the Nominating Committee will be confirmed by a majority of members in attendance at our business meeting on May 13, 1986 at Elmhurst Country Club.

NOMINEES FOR SECTION OFFICERS

SEASON 1986 - 1987



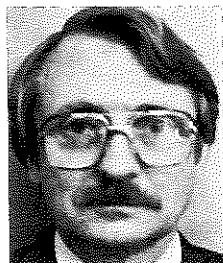
CHESTER FRANCIS

*For Vice Chairman
Manufacturing & Materials*
CHESTER FRANCIS
ROBERT BOSCH

*For Vice Chairman
Fuels & Lubricants*
THEODORE O. WAGNER
AMOCO OIL CO.



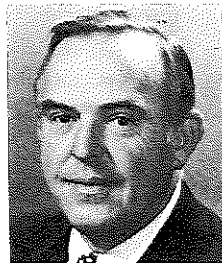
THEODORE O. WAGNER



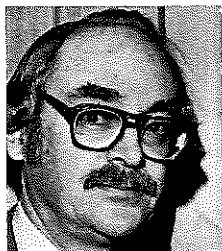
ANTHONY VERING

Membership
ANTHONY VERING
CR INDUSTRIES

*For Delegate, National
Nominating Committee*
H.A. WEATHERHEAD
H.A. WEATHERHEAD & ASSOCIATES



H.A. WEATHERHEAD



R.T. BENNETT

*1st Alternate, National
Nomination Committee*
R.T. BENNETT
CASE I H

*2nd Alternate, National
Nominating Committee*
C.F. CERVENKA
CONSULTANT



C.F. CERVENKA

NOMINEES FOR SECTION OFFICERS SEASON 1986 -1987

“BACK-UP” AND ASSISTANTS FOR TECH CHAIRMEN

A new and innovative approach has been instigated this year to develop and plan Chicago Section's programs beyond the 1986-87 year. These individuals will research new ideas and avenues, investigate what lies ahead two to three years hence, and have them ready as viable subjects for presentation.

The Nominees for election to the “Back-Up” positions are as follows:

Nominee

Membership — **A.W. Vering**
Mfg. & Materials — **Chester Francis**
Farm, Constr., Ind. Machinery —
Brent Harman
Power Plants — **John Den Besten**
Parts & Accessories — **Rich Kozerski**
Transportation Equipment — **Geo. Raab**
Advanced Technology — **Ray Jenks**
Fuels & Lubes — **Ted Wagner**

“Back-UP” Nominee

Pat Brunicardi — CR Industries
Allan McIntyre — Sprague Devices
Tom Hickey — Navistar
Steve Arnold — Navistar
Mike Rogers — Packer Engineering, Inc.
William Gray — Caterpillar
Al Krodel — Amoco

SAE CHICAGO SECTION NEWS

Published by CHICAGO SECTION, SOCIETY OF AUTOMOTIVE ENGINEERS

VOL. 54

MAY, 1986

NO. 5

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J.A. Den Besten (International Harvester Co.)	Power Plants	(312)-836-3953
R.J. Kozerski (Dana Corp.)	Parts & Accessories	(312)-960-4200
G.F. Raab (NTN Bearing Corp.)	Transportation Equipment	(312)-298-7500
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T.O. Wagner (Amoco Oil Co.)	Fuels & Lubricants	(312)-420-5111

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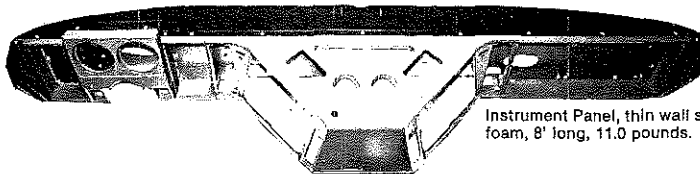
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H. Yano (Caterpillar Tractor Co.)	Arrangements	(312)-859-5741
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C.E. Nelson (Consultant)	Long Range Planning	(312)-355-0372
G.R. Bailey (Bailey Marketing, Inc.)	Long Range Planning	(815)-455-5064
J.D. Carlson (Elgin Sweeper Co.)	Long Range Planning	(312)-741-5370
R.T. Bennett (Case)	Long Range Planning	(312)-887-2078
G.R. Bailey (Bailey Marketing, Inc.)	Historian	(815)-455-5064

NATIONAL NOMINATING COMMITTEE

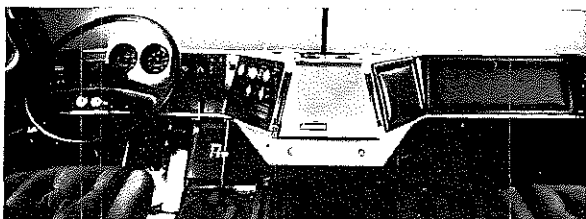
H.A. Weatherhead (H.A. Weatherhead Assoc.)	Delegate	(312)-251-0529
R.T. Bennett (Case)	1st Alternate	(312)-887-2078
C.F. Cervenka (Consultant)	2nd Alternate	(312)-968-0459

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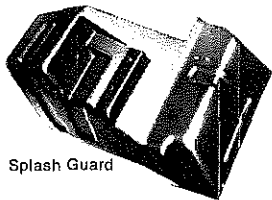
High Performance Engineered Plastic



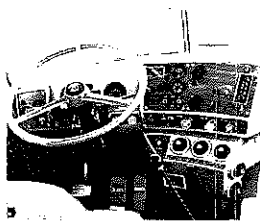
Instrument Panel, thin wall structural foam, 8' long, 11.0 pounds.



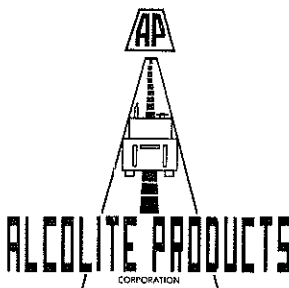
Mack Trucks M.H.



Splash Guard



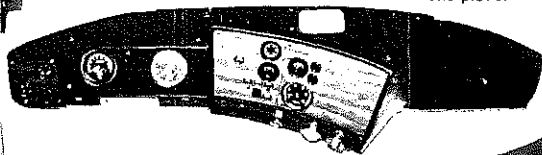
Padded Instrument Panels



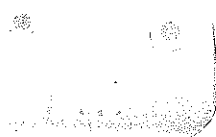
32100 Groesbeck Hwy.
Fraser, Michigan 48026
(313) 296-6020



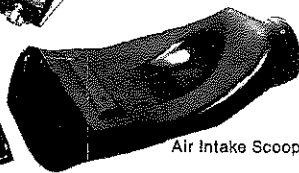
Peterbilt Snorkel 8'0 long
—one piece.



Headliner



Surge Tank



Air Intake Scoop

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**The 1986-87 season for the Chicago Section
kicks off with the Golf Outing on September
4, 1986. Plan now to attend this and other
functions and meetings. There are many,
many interesting things you can do.**