

FRICION MATERIALS STANDARDS INSTITUTE, INC.
588 MONROE TURNPIKE, MONROE, CT 06468

MINUTES OF THE ANNUAL MEMBERSHIP MEETING
OF THE
FRICION MATERIALS STANDARDS INSTITUTE, INC.

Sunday-Monday June 4-5, 2000

Ocean Reef Club

Key Largo, Florida

ACTIVE MEMBERS PRESENT

ABS Friction Inc.
Akebono
Anstro Manufacturing Inc.
BRAKEPRO, Ltd.
Capital Tool & Design Ltd.
Dana Brake & Chassis
Delphi E&C
Federal Mogul
Friction Material Company, Inc.
Honeywell Friction Materials
Motion Control/CARLISLE
Nucap Industries, Inc.
Reddaway Manufacturing Co., Inc.
Superior Friction, Inc.
Tabco Auto Brake Ltd.
TEK-MOTIVE, Inc.
Tribco Inc.
U.S. Automotive Manufacturing, Inc.
Vaapco, Inc.
Wheeling Brake Block

REPRESENTATIVES

Ralph Neil
Ken Selinger
Robert Bosco, Jr.
Rudy Prosperi
Michael Greenberg
Donald Delvy
Rick Johnston
Walter Britland, President
Robert Scott
Griff Jordan
Tom Sheikh
Michael Dorney (6/4)
Pamela Barton(6/4)
Patrick Healey, Treasurer
Mary Christie
Steve Thrush
David Bortz
Martin Chevalier, Sr.
Richard Cross
Rob Burgess

ACTIVE MEMBERS - PROXIES TENDERED

BBA Friction Inc. (To G. N. Laycock)
BRAKEPRO Ltd. (To R. Prosperi)
CECO Friction (To G. N. Laycock)
E&D Manufacturing (To G. N. Laycock)
Haldex Manufacturing (To G. N. Laycock)
Millennium Brake Ltd. (To G. N. Laycock)
Morse Automotive (To G. N. Laycock)
O.E. Quality Friction (To G. N. Laycock)
Reddaway Manufacturing (To P.Barton)
Tabco Auto Parts (To M. Christie)
TEK-MOTIVE Inc. (To S. Thrush)
Uni-Bond Brake (To G. N. Laycock)
Universal Brake (To G. N. Laycock)
Wellman Friction Prod.(To G. N. Laycock)

PROXY FROM

Lloyd Broadstreet
Russell Armer
D. Ted Shumate
Leo Deutschmann
Brent Armentrout
Kamal Sethi
Peter Morse
Norm Abbott
Todd Walker
John Svazic
Tom Moalli
Michael Grattan
Hugo Castrillon
Carl Habert

OTHERS PRESENT

ABS Friction Inc.	Rick Jamieson (6/4)
Anstro Manufacturing Inc.	Richard Bochicchio
AutoSpeciality	Chris Erickson (6/4)
Greening Testing Laboratories	Charles Greening (6/4)
Link Engineering	Tim Duncan
Pennsylvania Brake Bonding Co.	Joseph Sawa
Raybestos Aftermarket Products Co.	Doreen Tomao
REMSA of America	Bennett Kublin
Sachs North America	Bill Vernier
Valeo Friction Materials	Earl Bloom (6/4)
Wheeling Brake Block	Lee Burgess
J.T. Trainor & Associates	Jim Trainor (6/4)
U.S. EPA Emissions Standards Div.	Kevin Cavender (6/4)
Morehouse Harlow & Weldy	Thomas P. Weldy
Attorneys at Law	
Friction Materials Standards Institute	Gilbert N. Laycock, Secretary

Mr. Walter Britland, President, called the meeting to order at 8:34 A.M. June 4, 2000. As the first order of business, Mr. Britland called for a roll call.

MINUTES OF PREVIOUS MEETING

The Secretary advised that minutes of the Membership Meeting of June 6, 1999 had been distributed. The President suggested that a reading of the minutes be dispensed with, as no corrections had been suggested.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the minutes of the Membership Meeting of June 6, 1999 as written.

PRESIDENT'S REPORT

Mr. Britland presented his report. Please refer to EXHIBIT 1 in the report booklet.

Mr. Britland welcomed all to the 2000 Annual Meeting and noted some of the changes that have transpired in the industry in the past several years and their effect on the Institute. Mr. Britland reviewed and gave a brief overview of the Committee Reports that would be presented over the course of the meeting. He thanked the various committee members for their participation and encouraged those who are inclined to participate to do so.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the President's Report as presented.

There was no discussion on this report.

REPORT ON BOARD OF DIRECTORS ACTIVITIES

The Secretary summarized the activities of the Board of Directors transacted during the past fiscal year with mail ballots, primarily consisting of membership additions and terminations. Also the activities of the Board during its meeting of June 3, 2000 were reviewed. The Board of Directors activities are summarized as follows:

Mail Ballots

July 1999	The Board of Directors approved the Regional Membership Application filed by the Andus Group for Mainland China.
September 1999	The Board of Directors approved the Regional Membership Application filed by European Friction Industries Ltd., Bristol, England.
October 1999	The Board of Directors approved the Regional Membership Application filed by Egar S.A., Quito, Equador.
December 1999	The Board of Directors approved the Licensee Membership Application filed by Covina Brake, Asuza, CA.
December 1999	The Board of Directors approved the Regional Membership Application filed by Termolite Industria Ecomercio Ltda. Rio de Janeiro, Brazil.
December 1999	The Board of Directors approved the Licensee Membership Application filed by Pennsylvania Brake Bonding, Philadelphia, PA.
January 2000	The Board of Directors approved the Active Membership Application filed by Tribco Inc., Cleveland, OH. This application was also voted on and approved by the membership.
March 2000	The Board of Directors voted to terminate the membership of Daedong Brake Mfg. Co. Inc., for unpaid dues.
April 2000	The Board of Directors approved the Regional Membership Application filed by Duroline SA, Brazil.
May 2000	The Board of Directors approved the Licensee Membership Application filed by Greening Testing Laboratories, Detroit, MI.

REPORT ON BOARD OF DIRECTORS ACTIVITIES (continued)**June 3, 2000 Meeting**

- o The Board of Directors voted to recommend approval of the Expense Budget which will be presented in the Budget Committee Report.
- o The Board of Directors voted to endorse the recommendations of the Fee Formula Committee which will be presented this morning.
- o The Board of Directors voted to approve the Licensee application filed by Neo-Brake Industries.
- o The Board of Directors voted to conditionally approve the zero category Regional Membership filed by A.S. Roulands - Denmark.
- o The Board of Directors recommended that a DSL (Digital Subscriber Line) be investigated for internet access.
- o The Board of Directors voted to require authorization from the Treasurer and President before any U.S. Treasury Note roll-overs.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the report on the Board of Directors as read.

There was no discussion on this report.

MEMBERSHIP COMMITTEE

This report, presented by Mr. Pat Healey, Chairman of the Committee. Please refer to EXHIBIT 2 in the report booklet.

Mr. Healey's report noted a net increase of five members as of the writing of the report to a total of 89 members. However, late applications, after the report was written, increased the total membership to 92 members. The net membership change was comprised of a loss of 5 members and a gain of 13 members.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Membership Committee Report as written.

There was no discussion on this report.

TREASURER'S REPORT

This report was prepared by Mr. Rob Burgess. Please refer to EXHIBIT 3 in your report booklet.

Mr. Burgess, Treasurer, noted that Operating Income was projected to be \$187,926 and Expenses were projected to be \$208,190. Investment Income was projected to be \$15,919 giving a net loss of \$4,345. Operating Income is projected to be \$3,276 more than budgeted. Membership Dues were \$3,425 less than budgeted and Total Expenses were projected to be \$5,395 less than budgeted. The report reviewed variance that were more than budgeted. It was noted that the fee billings had dropped considerably due to membership losses and consolidations, but, that recent new member additions may have begun a turn-around in fee billing erosion.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Treasurer's Report as written.

Mr. Britland noted that when the projections for the Treasurer's Report were made the amount of catalog sales and profit were unknown. The sales far exceeded expectations and therefore, the projected loss of \$4,345 will probably end up as a \$25,000 profit.

INVESTMENT ADVISORY COMMITTEE REPORT

Mr. Bob Scott, Chairman, presented the Investment Advisory Committee Report. Please refer to EXHIBIT 4 in the report booklet.

Mr. Scott noted in his report that the block of U.S. Treasury Notes of \$35,000 which matured in the fall of 1999 was rolled over to a \$40,000 block with maturity in approximately three years, but, that the block of \$35,000 which matured in the spring of 2000 was kept in the Money Market Account, due to the anticipated need for cash in June with the meeting expense and the production of the Library Edition of the Data Book. When payments for catalogs are received the Secretary would obtain a \$40,000 block of U.S. Treasuries with maturity in the spring of 2003. This would bring the Institute's ladderred blocks of Treasuries from five back to the normal six.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Investment Advisory Committee Report as written.

There was no discussion on this report.

BUDGET COMMITTEE

Mr. Martin Chevalier presented the Budget Committee Report. Please refer to EXHIBIT 5 in the report booklet.

Mr. Chevalier reported that the Institute's proposed budget had been increased from \$213,585 from 1999-2000 to \$216,685 for fiscal year 2000-2001. He reviewed the changes in the budget by expense category. The budget increase was a change of 1.45%. Mr. Chevalier noted that the Institute's lease for the office had been renewed for five years and the renewal included a "walk away" clause in the event the Secretary, dies, becomes disabled or retires.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Budget Committee Report as written.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To approve the Expense Budget of \$216,685.

There was no discussion on this report.

NOMINATING COMMITTEE REPORT

Mr. Martin Chevalier presented this report. There is no written report for the Nominating Committee.

Mr. Chevalier noted there were five Director positions with terms that run until June 1, 2001. They are:

Rob Burgess
Martin Chevalier
Michael Greenberg
Robert Scott
Open Position (Due to the retirement of Paul Myers)

The remaining four Director positions expire June 30, of this year. They are:

Richard Cross
Don Delvy
Pat Healey
Ralph Neil

Mr. Chevalier reviewed the constitutionally mandated diversity of the Board of Directors.

The recommendations of the Nominating Committee for four Directors to serve a two-year term until June 30, 2002, were:

Don Delvy	Richard Cross
Walter Britland	Ralph Neil

NOMINATING COMMITTEE REPORT (continued)

The recommendation of the Nominating Committee for a Director to fill the open position (due to the retirement of Paul Myers) to run to June 30, 2001 was: Robert Bosco.

The President asked if there were any nominations from the floor. There were no nominations from the floor.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: That nominations for the Board of Directors be closed.

The Secretary was directed to cast one ballot for the election of Don Delvy, Richard Cross, Ralph Neil, and Walt Britland to serve two-year terms until June 2002 and for Bob Bosco to serve a one year term until June 30, 2001. The Secretary advised that the ballot had been so cast. The Secretary advised that with the election of these five Directors, the Board had the required nine Members.

FEE FORMULA COMMITTEE REPORT

Mr. Walter Britland, Committee Chairman, presented this report. Please refer to EXHIBIT 6 in your report booklet.

Mr. Britland reviewed the sources of Institute income, the guidelines established by the Board of Directors for fee adjustment, projected income for fiscal year 1999-00 and the three year average of Income over Expense. The analysis of this average as compared to the guidelines for fee adjustment indicated that the fees should be raised. However, the additional income from catalog sales not projected in the reports would change the recommendation from raising dues to no change. Therefore, the Fee Formula Committee recommended that fees remain unchanged.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Fee Formula Committee Report as amended.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To recommend that the fee structure be unchanged for the upcoming fiscal year.

There was no discussion on this report.

ANNUAL MEETING COMMITTEE REPORT

This report was prepared by Mr. Rob Burgess, Chairman. Please refer to EXHIBIT 11 in the report booklet.

Two possible sites for the 2001 Annual Meeting were proposed. They were:

The Wigwam Resort located 25 miles west of Phoenix, Arizona with a room rate of \$127.00 plus 9.27% tax single or double occupancy.

Sawgrass Country Club & Resort in Ponte Vedra, Florida. Thirty-seven miles southeast of Jacksonville International Airport with basic room rate of \$139.00 plus 9% tax and \$149.00 plus 9% tax for single and double occupancy respectively.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Annual Meeting Committee Report as written.

It was noted that Tim Duncan from Link Engineering said that he was quite sure he could arrange a half day tour of a brake test facility in the Phoenix area if the meeting were to be in Phoenix. It was also noted that the Institute generally has its meetings in warm places which are in their "off-season". Thus, we have relatively low rates for very nice places in an attempt to entice members to attend.

Based on a straw vote the Membership favored the Wigwam Resort in Arizona. The tentative dates are June 8-11, 2001.

Guest Speaker I

Mr. Kevin A. Cavender of the U.S. Environmental Protection Agency - Emissions Standards Division, presented a status report on the National Emissions Standards for Hazardous Air Pollutants for Friction Material Manufacturing. A summary of Mr. Cavender's talk is included in Supplement I attached to these minutes.

Guest Speaker II

Dr. James T. Trainor of J.T. Trainor Testing Co. LLC., presented the recently completed BMC/SAE J2430 Dynamometer Test Program. This is a standardized effectiveness test for aftermarket brake friction products. A summary of Dr. Trainor's presentation is included in Supplement II attached to these minutes.

The Institute wishes to thank both Mr. Cavender and Dr. Trainor for taking the time to present their topics to the Institute Membership. Both topics were of interest and will impact the Members of the Institute.

DATA BOOK AND TECHNICAL COMMITTEE REPORT

Mr. Don Delvy, Chairman, presented this report. Please refer to EXHIBIT 7 in the report booklet.

Mr. Delvy reviewed the changes in the Committee Roster and the part number assignment made during the year. He discussed the 2000 Automotive Data Book - Library Edition, which is the largest catalog ever produced by the Institute and the largest single year catalog printing ever done by the Institute. Mr. Delvy thanked the contributors to the Institute information. The report included a detailed list of contributors of new part number assignments.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Data Book and Technical Committee Report as written.

There was no discussion on this report.

End Sunday, June 4, 2000 - 11:30 am
Start Monday, June 5, 2000 - 8:35 am

BRAKE PERFORMANCE STUDY COMMITTEE REPORTS

This report was prepared by Mr. Tim Duncan, Chairman. Please refer to EXHIBIT 8 in the report booklet.

Before starting his presentation, Mr. Duncan noted that he had added the Heavy Duty section to his presentation. The Heavy Duty was previously done by Paul Myers who has retired. He wished to thank Paul for his Heavy Duty education over the years and wish him well in his retirement.

Mr. Duncan reviewed the recent developments on the following topics:

- SAE J2430 Effectiveness Characterization Test for Brake Friction Materials
- SAE J2521 Disc Brake Dynamometer Squeal Noise Matrix
- Friction Material "Finger Printing"
- Environmental - Copper Wear Debris
- SAE J1802 Brake Block Effectiveness Rating
- ATA & Maintenance Council (TMC) RP628
- SAE Truck and Bus Brake FMVSS 121 Dynamometer Task Force

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Brake Performance Study Committee as written.

BRAKE PERFORMANCE STUDY COMMITTEE REPORTS (continued)

There was a question concerning the possibility of increasing the number of vehicle platforms tested under SAE J2430. Mr. Duncan noted that the BMC intends to do just that in time. There was a question on SAE J2521 concerning the possibility of applying it to the truck environment. Mr. Duncan noted that he doubted it would be applied to truck applications. The procedure was designed as an automotive test primarily for the O.E. side of the business.

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

This report was prepared by Mr. Howard Schmitt and presented by Mr. Walt Britland. Please refer to EXHIBIT 9 in the report booklet.

The report reviewed the current status of heavy metal in storm water. The Brake Manufacturers Council (BMC) had created a subcommittee called the "Product Environmental Committee" (PEC) which allows BMC members to deal with the environmental concerns of the raw materials used in the manufacture of friction materials. The report also addressed the National Emissions Standard of Hazardous Air Pollutants (NESHAPS) and the Maximum Achievable Control Technology (MACT). Also covered were ergonomic regulations being proposed by the Occupational Safety and Health Administrations (OSHA). Also covered was Proposition 65 which is a California State Regulation to define raw materials that can be used in friction materials sold on used in the state of California.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the Health & Environmental Affairs Committee Report as written.

There was no discussion on this report.

INSTITUTE PENSION PLANS

This report was presented by Gil Laycock, Secretary. Please refer to EXHIBIT 10 in the report booklet.

Mr. Laycock noted that the Institute Pension Plan which was initiated in 1981 contributes at a rate of 15% of eligible employee wages. The contributions for 1999-00 were projected to be \$18,251.82. The employees direct the investment of contributions. Deferred contributions are allowed with all employees participating in this option.

Upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To accept the report on Institute Pension Plans as written.

There was no discussion on this report.

Mr. Britland introduced the new Officers for the upcoming year. They are:

President	-	Pat Healey
Vice-President	-	Rob Burgess
Treasurer	-	Richard Cross

There was a question concerning wet friction, if the Institute had ever entered into the wet friction area. The Secretary noted that back in the 1950's or '60's, FMSI clutch numbers may have been assigned to wet steering clutches and spacer plates for John Deere or Caterpillar tractors but nothing had been done on wet friction used in automatic transmissions.

There being no other business brought to the attention of the Membership, upon motion duly made, seconded and unanimously passed, it was:

RESOLVED: To adjourn at 9:30 AM

G. N. Laycock
Secretary