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

MINUTES OF THE ANNUAL MEMBERSHIP MEETING

OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Sunday and Monday, June 7 and 8, 1998

La Quinta Resort & Club

La Quinta, California

ACTIVE MEMBERS PRESENT	REPRESENTATIVES
ABS Friction Inc.	Ralph Neil
All Metal Machine Specialties Ltd.	Richard Lonetto
AlliedSignal Friction Materials	Larry Mintman
Anstro Manufacturing Inc.	Robert Bosco, Jr.
Brake Parts, Inc.	Donald Delvy
BRAKEPRO, Ltd.	Rudy Prosperi
Capital Tool & Design Ltd.	Michael Greenberg
Cooper Industries/Moog Automotive	Walter Britland, President
Friction Material Company, Inc.	Robert Scott
Gunn Metal Stampings Inc.	Robert Beaupre (6/7)
Haldex Brake Products Corp.	Paul Myers
New Jersey American Brake Products	Greg Fresta
Nucap Industries	Ray Lizewski
Superior Friction, Inc.	Patrick Healey
TEK-MOTIVE, Inc.	Thomas Moalli
U.S. Automotive Manufacturing, Inc.	Martin Chevalier, Sr.
Vaapco, Inc.	Richard M. Cross
Wheeling Brake Block	Rob Burgess

ACTIVE MEMBERS - PROXIES TENDERED	PROXY FROM
AlliedSignal (To Larry Mintman)	Jai Mistry
BBA Friction Inc. (To G. N. Laycock)	Lloyd Broadstreet
BRAKEPRO, Ltd. (To Rudy Prosperi)	Russ Armer
CECO Friction (To G. N. Laycock)	D. Ted Shumate
Delphi Chassis (To G. N. Laycock)	Rick Johnston
EIS Brake Parts (To G. N. Laycock)	Sean McVey
Morse Automotive (To G. N. Laycock)	Peter Morse
Motion Control Ind. (To G. N. Laycock)	William Wood
North American Friction(To G. N. Laycock)	Hugo Castrillon
Nucap Industries (To R. Lizewski)	Ray Arbesman
O.E. Quality Friction (To G. N. Laycock)	Norm Abbott
Reddaway Manufacturing (To R. Burgess)	Todd Walker
Scan-Pac Manufacturing (To G. N. Laycock)	Skip Scandrett
Tabco Auto Parts (To G. N. Laycock)	John Svazic
Total Brake (To G. N. Laycock)	Alex Tabori
Uni-Bond Brake (To G. N. Laycock)	Michael Grattan
Engineered Friction (To G. N. Laycock)	Patrick Smith

OTHERS PRESENT

ABS Friction Inc.	Rick Jamieson
Anstro Manufacturing Inc.	Richard Bochicchio
APRA Technical Service	E. Mark Kothe
Chinapine Trading Co. Ltd.	Thomas Chan (6/7)
Chinapine Trading Co. Ltd.	Sam Lo (6/7)
Freno S.A.	Doreen Tomao
Gunn Metal Stampings	Jim Robinson (6/7)
Murray Associates	Bill Murray
New Jersey American	Louis Fresta (6/7)
Sachs North America	Bill Vernier, Jr.
TEK-MOTIVE, Inc.	Steve Thrush
Morehouse Harlow & Weldy Attorneys at Law	Thomas P. Weldy
Friction Materials Standards Institute	Gilbert N. Laycock, Secretary

Mr. Walter Britland, Vice President, called the meeting to order at 1:35 P.M. June 7, 1998. 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 8-9, 1997 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 8-9, 1997 as written.

VICE-PRESIDENT'S REPORT

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

Mr. Britland welcomed all to the 1998 Annual Meeting and reviewed some of the changes that have transpired in the industry in the past several years. He acknowledged past President, Ms. Doreen Tomao, for her contributions to the Institute and the industry and wished her well in her future endeavors. 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 Vice-President's Report as written.

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 their meeting of June 6, 1998 were reviewed. The Board of Directors activities are summarized as follows:

- Voted to establish a Transition Fund.
- Approved Membership Application filed by Haining Law's Friction Material Co., Peoples Republic of China.
- Approved Membership Application filed by Duramax S.A. de C.V. in Tlalnepantla, Mexico.
- Approved Membership Application filed by North American Friction, Downsview, Ontario, Canada.
- Voted to terminate the Membership of Findexx Manufacturing for unpaid dues.
- Approved Membership Application filed by O.E. Quality Friction in Mississauga, Ontario, Canada
- Balloted on meal choices for Membership dinner.
- Voted to recommend approval of the Expense Budget proposed by the Budget Committee.
- Voted to endorse the recommendations of the Fee Formula Committee.
- Voted to terminate the Membership of Allied Nippon of New Delhi, India for unpaid.
- Voted to terminate the Membership of Icer, Materiales de Friccion SAE of Pamplona, Spain if dues are not paid by September 30, 1998.
- Voted to transfer 50% of the excess of total Income over Expenses to the Reserve for Transition prior to the closing of the books for the fiscal year.
- Voted to index the US Treasury Notes in the Institute reserve by plus $5,000 for each successive roll-over during the next three years.
- Gave a tentative approval to a proposal for a Library Edition of the Automotive Data Book targeted for the year 2000.

REPORT ON BOARD OF DIRECTORS ACTIVITIES (cont'd)

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

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

There was no discussion on this report.

MEMBERSHIP COMMITTEE

This report, prepared by Bill Wood, Chairman of the Committee, was presented by Gil Laycock. Please refer to EXHIBIT 2 in the report booklet.

The report noted that Membership had declined by one from last year. There were five Active Members lost and two gained for a net loss of three Active Members. There was one Regional Member lost and there were three gained for a net gain of two Regional Members. The Licensee category did not change. The breakdown by membership type was: Active 44, Regional 35 and Licensee 11.

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

Mr. William Wood, Treasurer, prepared this report. Please refer to EXHIBIT 3 in the report booklet.

The Treasurer's Report projected an excess of total income over expense, or profit, of $20,035. The Institute's operating income was projected to be $204,073, with expenses projected at $200,946, giving an operating income of $3,127. When Investment Income of $16,908 is added, the projected total profit of $20,035 is derived. The report analyzed any variances from budget of more than $200. Eight were favorable variances and four were unfavorable variances. The report included a Balance Sheet Projected to June 30, 1998, a Statement of Income and Expenses Projected for the 1997-98 Fiscal Year, and a Seven-Year Financial Summary.

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

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

There was no discussion on this report.

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 advised that the total investment assets projected to June 30, 1998 were $276,586 versus $255,345 on June 30, 1997. Current yields on U.S. Treasury Notes average 5.6%, down from 6.1% last year and Money Market yields have dropped to 4.67% down from 4.86% last year. The projected Investment Income for 1997-98 is $16,908 up from $13,571 during the previous year. Estimated income for 1998-99 is down slightly to $15,754. The report also included a summary of the Institute's holdings in U.S. Treasury Notes.

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, Chairman, read the report. Please refer to EXHIBIT 5 in the report booklet.

Mr. Chevalier reported that the Committee proposed an Expense Budget of $213,535 for the 1998-99 fiscal year. His report noted that the salary amount was indexed for budget purposes but any salary increments are determined by the Board of Directors. Line items that were increased were: FICA Taxes, State Unemployment Insurance, Legal Expense, Audit Expense, Insurance Expense, Pension Expense and Meeting General Expense. A new expense category was added for transition provision which funds the Reserve for Transition. Line items that were decreased are: Telephone, Postage, Dues and Subscriptions, Service and Repairs and Depreciation. Line items that were unchanged were: Rent, Stationery & Supplies, Bank Fees, Federal Unemployment Insurance, State Property Tax, Miscellaneous, Meeting Travel, Catalog Travel and General Travel.

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

RESOLVED: To accept the Budget Committee Report as written.

There was no discussion on this report.

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

RESOLVED: To approve the Expense Budget of $213,535.

NOMINATING COMMITTEE REPORT

Mr. Robert Scott delivered this report. There is no written report for the Nominating Committee.

The Board of Directors has four members whose terms expire this year. They are:

Bill Aymond	-	Cooper Industries/Moog Autom.
Richard Cross	-	Vaapco Inc.
Pat Healey	-	Superior Friction, Inc.
Joseph Nir	-	(Fibro Friction) Now Cooper Ind./Moog Autom.

There are five Directors whose terms run to June 1999. They are:

Martin Chevalier	-	U.S. Automotive Manufacturing
Rob Burgess	-	Wheeling Brake Block
Paul Myers	-	Haldex Brake Product Corp.
Robert Scott	-	Friction Material Company
William Wood	-	Motion Control Industries

The recommendations of the Nominating Committee for four Directors to serve a two-year term until June 30, 2000, were:

Donald Delvy	-	Brake Parts Inc.
Richard Cross	-	Vaapco Inc.
Patrick Healey	-	Superior Friction, Inc.
Joseph Nir	-	Cooper Industries/Moog Autom.

Mr. Scott also reviewed the constitutionally mandated diversity of the Board of Directors.

The Vice-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 Mr. Delvy, Mr. Cross, Mr. Healey, and Mr. Nir to serve two-year terms until June 2000. The Secretary advised that the ballot had been so cast. The Secretary advised that with the election of these four Directors, the Board had the required nine Members.

FEE FORMULA COMMITTEE REPORT

Mr. Walter Britland, Chairman, delivered the report of the Fee Formula Committee. Please refer to EXHIBIT 6 in the report booklet.

The report detailed the income generated from Membership Dues for the various types of Membership and projected fee income of $191,550 using the existing fee structure. Using the fee income

FEE FORMULA COMMITTEE REPORT (cont'd)

and proposed expense budget of $213,535, projected investment income of $15,754 and estimated income of $12,000 from sales of catalogs, assignment prints and bulletins, the Committee projects an estimated excess of total revenues over expenses of $5,769 for fiscal 1998-99. The Treasurer's Report projected total income over expenses for 1997-98 of $20,035. Combining the projections and estimates with audited results, the report calculated 3-year averages for the 1995-99 and 1996-99 time frame and compared them to the guidelines established in 1991 for fee structure adjustments. The Committee recommended that the fee structure remain the same for the next fiscal year.

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

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

There was no discussion on this report.

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

RESOLVED: That the fee structure be unchanged for the 1998-99 Fiscal Year.

ANNUAL MEETING COMMITTEE REPORT

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

Two possible sites for the 1999 Annual Meeting were proposed. They were:

Ocean Reef Club - Key Largo, Florida - A very exclusive, private 4,000 acre resort on the northern tip of Key Largo, Florida with room rates of $130 - single and $140 - double plus 11.5% room sales tax.

The Resort at Longboat Key Club - Longboat Key, Florida - A resort at which the Institute had held meetings in 1993, 95 and 97, with room rates starting at $115 (twin) and $125 (king) plus 10% room sales tax. Larger rooms are available up to a two bedroom suite at $300/night.

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

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

There was no discussion on this report.

DATA BOOK AND TECHNICAL COMMITTEE REPORT

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

Mr. Delvy listed the Committee Roster and reviewed the new part assignments which were down considerably from the numbers assigned in the previous year. The report detailed the number of assignments by category. He reviewed the 1998 Automotive Data Book and noted that an updated version of the Brake Block Identification Catalog was produced and distributed in November 1997. Mr. Delvy thanked the contributors of information for new assignments and carry-over information.

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

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

Mr. Britland gave a review of the proposed "Library" Edition of the Automotive Data Book, which is targeted for the year 2000. The proposed catalog will contain 30 years of applications from 1971 to 2000. It will also contain all shoe and plate drawings. He advised the membership that we would be looking into the possibility of a CD-ROM version as we get closer to publication.

BRAKE PERFORMANCE STUDY COMMITTEE REPORT

The Brake Performance Study Committee Report is in two parts. The Heavy Duty portion was prepared by Paul Myers and the Automotive portion was prepared by Bill Aymond. Please refer to EXHIBIT 8 in the report booklet.

Heavy Duty

Mr. Myers reviewed items of interest concerning SAE J1801/1802 and work being done by the University of Michigan Transportation Research Institute concerning test variability. The NHTSA Research Center at the Ohio Transportation Research Center is also doing a study using a modified SAE J1802 procedure. The Maintenance Council (TMC) of the ATA Recommended Practice 628 which has been in use for several years and has started increasing in scope to include 23,000 pound axles as well as 20,000 pound axles. The SAE Lining Review Committee, at the request of TMC, undertook audit testing of listed materials which were purchased over the counter. There were several failures.

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

RESOLVED: To accept the Heavy Duty Report of the Brake Performance Study Committee as written.

There was no discussion on this report.

BRAKE PERFORMANCE STUDY COMMITTEE REPORT (cont'd)

Automotive

Mr. Walt Britland presented the report prepared by Mr. Aymond which reviewed the progression of testing procedures for passenger cars brake effectiveness from SAE J1652 to SAE J1653 to the combined SAE J2430. The SAE J2430 is designed to be a "generic" test procedure applicable to passenger car or light truck front or rear brake, disc or drum, using several exemplar vehicles. The intent is to be able to do the testing on a single ended dynomometer. One of major hurdles is the variability of test results from dyno's in different laboratories.

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

RESOLVED: To accept the Passenger Car Report of the Brake Performance Study Committee as written.

There was a question asked concerning the amount of government pressure in this regard. Mr. Britland noted that up until recently it had been a "back burner" issue, but, recently the National Highway Traffic and Safety Administration seems to be starting to get involved.

Mr. Britland also noted, that in all the types of testing, performance as measured by stopping distance has been the only measure. Durability and noise have not been considered as part of the test. There was a question concerning a comparison between FMVSS 105 and FMVSS 135. Mr. Britland noted that the stopping distance requirements for FMVSS 135 are shorter using less pedal pressure than those of FMVSS 105, so that a material which passes FMVSS 105 will not necessarily pass FMVSS 135.

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

This report was prepared by Mr. Bill Aymond, Chairman and presented by Mr. Pat Healey. Please refer to EXHIBIT 9 in your report booklet.

The report noted that there is nothing new to report on asbestos. Concerning heavy metals in storm water the Brake Manufacturers Council is creating a new sub-committee called the "Product Environmental Committee". The first item they will deal with is copper in storm water. This issue started in California several years ago, specifically in San Francisco Bay where copper from brake lining wear debris was alleged to be a major contributor to dissolved copper in the water. The city of Palo Alto, California is said to be in violation of the Clean Water Act and is being monitored by the E.P.A. A group called "Common Ground for the Environment" is attempting to develop a voluntary means to resolve the problem working with the friction material industry. They will be making a presentation at the SAE Brake Colloquium in September in San Francisco. The Environmental Protection Agency (EPA) is looking to formulate a Maximum Available Control (MAC) standard for "Smoke Stack" Emissions from friction material

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE (cont'd)

manufacturers. A questionnaire was sent to friction material manufacturers in December 1997 by an EPA sub-contractor.

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

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

A member noted that with respect to the EPA questionnaire, they (EPA) are looking at more than smoke stack emissions. They are looking at the entire friction material industry from manufacturer to the rebuilder to the individual that buys and sells friction material without opening the box. They are concerned with OSHA controlled materials that would appear on a Material Safety Data Sheet (MSDS) to potentially hazardous components that are not, as yet, listed as a hazardous material and thus are non-OSHA controlled. Another member noted that in California they might have a bounty hunter approach in looking for the use of certain raw materials by which the individual would get paid for reporting the use of these materials.

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 1997-98 were projected to be $18,088. 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.

NEW BUSINESS

Mr. Britland asked for a volunteer to serve as chairman of the Annual Meeting Committee. Mr. Rob Burgess volunteered to serve as Chairman of the Meeting Committee.

Mr. Mark Kothe from APRA asked if the Institute would be interested in having a web site on the internet. APRA does have a web server. There was a question as to the monthly cost for this service. Mr. Kothe estimated the cost at about $100 per month. Mr. Britland noted that the start-up fee for a web site for the Brake Manufacturers Council was about $12,000. A member noted that his web site has been good for sales but as the Institute does not sell a product to the general market he does not see any benefit from it. There was a suggestion that we let it ride until next year.

INTRODUCTION OF OFFICERS

Mr. Britland introduced to the Membership the new Officers to serve for the forthcoming year. They are:

President	-	Walter Britland
Vice President	-	William F. Wood
Treasurer	-	Patrick Healey
Secretary	-	Gilbert N. Laycock

* *

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

Adjourned at 9:05 A.M. June 8, 1998

G. N. Laycock
Secretary