MINUTES OF THE ANNUAL MEMBERSHIP MEETING

OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Tuesday and Wednesday, June 20 and 21, 1989

at

Sawgrass Country Club, Ponte Vedra, Florida

ACTIVE MEMBERS PRESENT	REPRESENTATIVES
Abex Corporation	Robert E. Nelson
Allied Aftermarket - Bendix	Stanley L. Stokes
Certified Brakes - Allied Signal	Larry Mintman, Vice President
Delco-Moraine NDH	Donald L. Emrick
Friction Materials Company	Larry Belans, Treasurer
HKM of California Corp.	Ronald Randall
Nuturn Corporation	Rita Grisham
Raymark Friction Company	Doreen Tomao
Reddaway Manufacturing Co.	Edward F. Eggert

ACTIVE MEMBERS - PROXIES TENDERED	PROXY FROM
Brake Parts Inc. (To G. N. Laycock)	Larry Pavey
Coan Equipment Co. (To G. N. Laycock)	D. Ted Shumate
Friction Materials, Inc. (To G. N. Laycock)	Rod Richardson
Scan-Pac Manufacturing Co. (To G. N. Laycock)	Henry A. Scandrett
Wagner Division - Cooper Ind. (To G. N. Laycock)	Tom Rokos
S. K. Wellman Corp. (To G. N. Laycock)	Fred A. Kowalcyk

OTHERS PRESENT	
Aimco Division - ITT Industries	Douglas A. Willsie
Allied Automotive - Bendix	Steve Zinno
Borg Warner do Brasil	William Vernier
Carlisle Corporation	Roy Buckaby
Carlisle Corporation	Ron Luellen
Carlisle Corporation	William F. Wood
HKM of California, Corp.	W. Max Sleeth, President
Nuturn Corporation	George Hoffman
Nuturn Corporation	Don Loftis
Reddaway Manufacturing Co.	F. William Barton
Harwood Lloyd, Counsellors at Law	Richard LeBlancq
Friction Materials Standards Institute	Edward W. Drislane, Secretary
Friction Materials Standards Institute	Gilbert N. Laycock, Secretary

Mr. Sleeth, President, called the meeting to order at 1:30 PM, June 20, 1989. As the first order of business, the President called for a roll call.

MINUTES OF PREVIOUS MEETING

The Secretary advised that minutes of the Membership Meeting of June 14-15, 1988 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 14-15, 1988 as written.

PRESIDENT'S REPORT

Mr. Sleeth, President, read this report. Please refer to EXHIBIT 1 in the report booklet.

Mr. Sleeth noted the most significant thing to happen in his first year as President was the retirement of Mr. Drislane and the ensuing search for a replacement. He expressed thanks to the Technical Committee Chairmen for the work of those Committees during the year. Mr. Sleeth commended Mr. Drislane on his "usual excellent performance in the management of the Institute", and welcomed Mr. Gil Laycock as the new Secretary.

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

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

Mr. Sleeth introduced Gil Laycock, the new Secretary of the Institute who will succeed Mr. Drislane when he retires June 30, 1989. Mr. Laycock gave a brief summary of his work experience over the last 25 years starting as a friction compounder in the Development Laboratory with Raybestos-Manhattan to Manager of Product Engineering with Raymark to Manager of Product Engineering with Brake Systems Inc., a subsidiary of Echlin.

REPORT ON BOARD OF DIRECTORS ACTIVITIES

The Secretary reported on activities of the Board of Directors during this past fiscal year. As a portion of the activity is at the Board Meeting immediately preceding the Membership Meeting, there is no written report.

The Board approved membership applications filed by several Regional Members, certain Licensees and one Active Member. Details are in Ms. Grisham's Membership Committee report. The Board, acting on recommendations of the Search Committee, approved an offer to the new Secretary and Executive Director, Mr. Gil Laycock. They next approved the hiring of Mr. Laycock, who started with the Institute on February 1, 1989.

At the special meeting in April, the Board took several actions to effect the changeover from Mr. Drislane to Mr. Laycock. These were:

(1) Election of Mr. Laycock as Secretary of the Institute.
(2) Approved certain signature authorizations for both the Midland Bank in Paramus and the Merrill Lynch Cash Management account.

(3) Changes Trustees for the Trust for benefit of Miss Duschek. Details are in the report on Institute Pension Plans.
(4) The Board resolved to eliminate the Reserve for Environmental Affairs and take the $29,200 in that account into income in this fiscal year.
(5) The Board authorized certain actions with respect to the move from New Jersey to Connecticut.

In addition, the Board approved details with respect to the meeting at the Sawgrass Country Club this June. Due to the move to Connecticut, the Board resolved to terminate the retainer arrangement for Legal Counsel and to have any legal services in the period after July 1 on a "Time and charges" basis.

At its special meeting, the Board discussed the difficulty the Institute has encountered of late in accessing product information. This applies to brake lining, brake shoes and clutch facings. The change to a global or international market has resulted in difficulties in accessing information on imported passenger cars and light trucks, and with the medium to heavy trucks sourced or designed outside of North America. It was noted that the membership should be advised that the Institute can make assignments even where certain detail dimensions are not available. The Institute solicits information and prints even where certain dimensions are either blacked out, removed, or otherwise not shown.

The foregoing covers work done by the Board up to the meeting at Sawgrass. Additional work was done at the regular Board meeting held on June 19, 1989.

Two new Regional Membership applications were reviewed and accepted, they were:

- o Fibro Friction of Montreal, Quebec
- o Fox Friction of Mississauga, Ontario

The Board reviewed the Fee Formula Committee Report and recommends that no Fee Formula changes be made for the 1989-90 fiscal year concerning the move to Connecticut, the Board approved a target date of "on or about September 1, 1989 to have the office moved. They also authorize Gil Laycock to handle the Sub-lease of the Paramus office and the new lease for the Connecticut office.

In 1985, the Board of Directors authorized $5,000 to be spent for an IBM PC/Word Processor. This purchase has not been made. However, because of less expensive PC's on the market, and the possibility of interfacing directly with our Printer's computer typesetting equipment the Board revised the authorization of up to $5,000 for a Personal Computer and Peripherals without specification as to make or model.

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

RESOLVED: To accept the report on the Board of Director's Activities as read.

A report on the status of the move of the office to Connecticut followed. Mr. Drislane stated that we had approached the Landlord in Paramus concerning the possibility of a buy-out of the lease which was not accepted, but we were given permission to Sub-lease the office space. We have engaged McBride Enterprises to handle the Sub-lease.of the Paramus office and several prospects have been looking at the office but have no firm offer to date. Mr. Laycock stated that the quoted prices for Connecticut office space are about 25% higher than the current Paramus rate, However, there is a lot of new office space for rent in the area and one renting agent, when told that his prices were too high for the Institute budget, offered an initial rate which was comparable to the Paramus rate.

Mr. Sleeth noted that even if we encounter the worst case scenario in terms of office rental, that being no Sub-lease of Paramus office and an office in Connecticut, one of the areas that will not be an expense to the Institute is the up to $600 per month that is authorized for Mr. Laycock's travel expense from Connecticut to Paramus. The net increase from Paramus rent plus travel expense to Paramus rent plus Connecticut rent with no travel expense would be about $550. per month.

MEMBERSHIP COMMITTEE

Ms. Rita Grisham, Chairman of the Membership Committee, presented this report. Please refer to EXHIBIT 2 in the report booklet.

Ms. Grisham noted that the Active Members remained unchanged at 22, but significant changes occurred in the Regional Membership from 29 to 34, with Licensees increasing from 20 to 22. The report detailed the changes.

After the report was prepared, there were two applications received at the Institute office for Regional Membership. They were from Fox Friction Manufacturing, Inc. of Mississauga, Ontario, and Fibro Friction Inc. of Montreal, Quebec. Both applications were reviewed and accepted by the Board of Directors at the meeting on June 19, 1989. Their membership will be effective July 1, 1989.

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

RESOLVED: To accept the Membership Committee report as written.

A discussion followed concerning companies which have manufacturing facilities in both the U.S. and Canada. Examples cited were Total Brake Industries of Dorval, Quebec who have acquired the former Virginia Friction Plant in Walkerton, Virginia and are manufacturing lining segments and disc pucks in the Walkerton Plant, and Interfriction of Cartersville, Georgia, who also have a facility in Canada. The Interfriction question is compounded by the sale of its facility in Georgia to Tennaco. Would their membership go from an Active membership to a Regional Membership if they no longer have manufacturing in the U.S.

Mr. Drislane explained the differences between Active and Regional memberships. Active Members are manufacturers of friction materials whose headquarters is in the U.S. A Regional Member is a Non-U.S., headquartered friction material manufacturer. Active and Regional Members pay the same dues and are entitled to the same information and services. The only differences between Active and Regional Members are Active Members are allowed to vote at Annual Meetings and are allowed to serve on the Board of Directors.

A suggestion was made that the Members consider redefining the Active Member category to include both U.S. and Canadian friction manufacturers, particularly in light of the relaxed trade restrictions across the U.S. and Canadian border. This would require some investigation and an amendment of the Constitution.

Mr. Mintman suggested that a Committee be appointed to study the U.S./Canadian Membership and make recommendations to the Board of Directors. Since Mr. Mintman made the suggestion, Mr. Sleeth appointed him to chair the Committee and suggested that he enlist a few volunteers to be on the Committee.

TREASURER'S REPORT

Mr. Larry Belans, Treasurer, read this report. Please refer to EXHIBIT 3 in the report booklet.

The report projected an excess of income over expenses of about $6,700. There were some variances from budget, both favorable and unfavorable, but the two items that impacted the Balance Sheet most favorably were the reversal of the Reserve for Environmental Affairs, taking $29,200 into income and a substantial Net from the sale of Catalogs of almost $12,000. Both of these items combined to offset the added expense of two Director's salaries, plus associated expense for 5 months.

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

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

BRAKE PERFORMANCE STUDY COMMITTEE REPORT

Mr. Bill Wood, Chairman, delivered the Brake Performance Study Committee Report. Please refer to EXHIBIT 7 in the report booklet.

One meeting of the Brake Performance Study Committee was held during the past year, and dedicated to producing a Draft Proposal for marking procedure J1801. Copies of the Proposal and cover letter with supporting statements were included in the report booklet. Copies of the Proposal and supporting statements have been forwarded to Mr. Randall Petresh of Bendix, and Mr. James R. Clark of Eaton, who are working on the SAE J1801/1802 Procedures.

A Director commented that when organizations outside the friction industry propose or endorse requirements that the industry must live with, it can become very expensive for the industry.

NHTSA (National Highway and Traffic Safety Administration) has just acknowledged receipt of the original SAE J1801-J1802 procedures and are studying them. A Director commented that it is a positive step that FMSI as a representative of the industry, is presenting input from the manufacturers. It was generally agreed that the original slotting procedure for J1801 would not provide that much value to the end user.

When the procedures get down to the final draft, a rational statement is included with the Proposal and NHTSA must evaluate the cost impact of any rule making. It was felt that the Institute should approach the block manufacturers with a request to get a cost estimate of both the slotting and embossing methods of permanently marking blocks. This information in condensed and consolidated form could become part of the rational statement.

Mr. Wood advised that SAE had asked if FMSI would be interested to act as a repository for block identification and coding when a format of what type of information is to be retained is established. At the Brake Performance Study Committee meeting it was agreed that the Institute would be interested in submitting a bid to be a repository for the coding information for SAE J1801.

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

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

Mr. Robert Nelson discussed a bit of the history of the original J1801 and J1802 marking and testing Proposals and recommended that the Members making blocks do a serious cost study on the original J1801 slotting method and submit those costs to the Institute. The information can be forwarded to TTBRG and/or NHTSA, particularly in view of the required economic impact studies at NHTSA.

NOMINATING COMMITTEE REPORT

Mr. Robert Nelson, Chairman, presented his Committee's report and recommendations. There is no written report for the Nominating Committee.

There are four Directors who were elected in 1988, whose terms do not expire until June 1990. They are:

Mr. F. William Barton	-	Reddaway Manufacturing Company
Mr. Larry Belans	-	Friction Material Company
Ms. Rita Grisham	-	Nuturn Corporation
Mr. Robert E. Nelson	-	Abex Corporation

There are three Directors whose terms expire this year. They are:

Mr. Art Moore	-	Carlisle Corporation
Mr. Larry Mintman	-	Certified Brakes
Mr. Ron Randall	-	HKM of California, Corp.

The Committee met after the Board of Directors meeting on June 19, and after much discussion, recommended the following nominations for terms to serve from July 1, 1989 to June 30, 1991:

Mr. Larry Mintman	-	Certified Brakes
Mr. Art Moore	-	Carlisle Corporation
Mr. Ron Randall	-	HKM of California, Corp.

This would give a Board breakdown of four Members in the Class 3 Category, one Member in the Class 2 Category, and two Members in the Class 1 Category.

The President asked if there were any nominations from the floor with respect to the Board of Directors. 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 by closed.

The Secretary was directed to cast one ballot for the election of Mr. Larry Mintman, Mr. Art Moore, and Mr. Ron Randall to serve two year terms until June 30, 1991. The Secretary advised that the ballots had been so cast. The Secretary advised that with the election of these three Directors, the Board had the required seven members.

INVESTMENT ADVISORY COMMITTEE

Mr. Ed Drislane, Secretary, presented the Investment Advisory Committee report.due to the absence of Mr. Art Moore, Committee Chairman. Please refer to EXHIBIT 4 in the report booklet.

The report stated that total investment assets at June 30, 1989 were projected at about $264,000 versus $290,000 at June 30, 1988. The reduction was primarily brought about by the extra Director salary from February to June, and associated costs. Interest receivables were down due to maturing of our higher interest Treasury Notes.

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

RESOLVED: To accept the report of the Investment Advisory Committee as written.

BUDGET COMMITTEE

Mr. Larry Belans, Chairman, presented the Budget Committee Report. Please refer to EXHIBIT 5 in the report booklet.

The Committee proposed an expense budget of $151,040 for the fiscal year 1989-90. This is less than a 4% increase over the expense budget for the year now ending. Although the total budget figure is comparable to the previous year, there are major changes in certain items eg., salaries decreased by $8,000, rent increased by $12,800 (Unless a Sub-lease arrangement can be made in Paramus), Pension Expense decreased by $7,800. Other items showed less significant variations, most of which were associated with the change in personnel and office move.

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

RESOLVED: To accept the Budget Committee report as written.

FEE FORMULA COMMITTEE REPORT

Mr. R. E. Nelson, Chairman of the Fee Formula Committee, presented his Committee's report. Please refer to EXHIBIT 6 in the report booklet.

Mr. Nelson noted that the formula for billing was restructed in 1987, and reviewed the structure for all of the types of membership. The Income Projection combined with Investment Income projected to within $1,000 of the proposed budget.

It was noted that, since the Fee Formula Committee Report was written, and Income Projections made two new membership applications had been received and were approved at the Board of Directors meeting on June 19, giving additional income of $3,700.

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

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

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

RESOLVED: That effective July 1, 1989 the annual dues for Active Members and Regional Members with Active Member rights would be the total of a basic fee of $1,600, and a charge for participation in each of the following categories: Disc brake linings; Drum brake linings; Brake Blocks; Clutch facings. The charge would be $250 each for the first and second categories, and an additional $500 each for the third and fourth category. (One category $1,850; Two categories $2,100; Three categories $2,600; Four categories $3,100).

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

RESOLVED: That effective July 1, 1989 the annual fee for Regional Members (Regular) would be $1,600; Regional Member (Association) $2,600; Licensee: $600.

INSTITUTE PENSION PLANS

The Secretary reported on the Institute Pension Plans. Please refer to EXHIBIT 10 in the report booklet.

There are two plans: (1) The Simplified Employee Pension Plan (SEP) for current employees, and (2) The Trust established for Harriet G. Duschek, which was funded by an Institute contribution of $55,000 in 1980.

The SEP calls for 15% of eligible employee salaries to be contributed to an employee's IRA. The Duschek Trust pays Miss Duschek $550 monthly, with assets as of December 31, 1988 of $46,309.

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

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

DATA BOOK AND TECHNICAL COMMITTEE REPORT

Mr. Doug Willsie, Chairman, presented this report. Please refer to EXHIBIT 8 in the report booklet.

Mr. Willsie noted changes in the roster of the Committee during the past year. Mr. Barry Swears of Abex was replaced by Mr. Jerry Shupe, and Gil Laycock had left to become Secretary of FMSI. The Committee met on May 3, 1989 and several resolutions and decisions were made:

- Gil Laycock to replace Ed Drislane on the ad-hoc Committee that decides if a material is organic or semi-metallic.
- Data Book color rotation - Blue/Red/Green, etc.
- Substituting "I-M" for "Integrally Molded", and line condensation to save pages in Catalog.
- Continue to assign new "D" numbers to small "changes" in steel, but show a sketch with changes noted in text rather than another sketch.
- Address hardware changes in disc assemblies by notation to "See Illustrations".
- Commence gathering information on Heavy-duty brake shoes and make number assignments where application information is available.
- Draft preliminary system of FMSI numbers for motorcycle disc pads.
- Rescind resolution made March 28, 1984, calling for disc brake pads to be shown in Brake Block Identification Catalog.
- All brake shoes starting with 611 will have "S" Prefix because of the potential confusion with disc pucks when shoes reach 700.
- Use the same lining assignment for new disc assemblies that are up to .020" less in thickness than the existing otherwise identical assignments.
- Show total thickness on disc assemblies that have lining molded on both sides.

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

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

A discussion followed concerning the Aftermarket Drill Patterns for disc brake pads which are supplied Integrally Molded as original equipment. Member companies are currently supplying pads for riveting disc brake sets which are Integrally Molded. It was recommended that a Sub-Committee be established under the Data Book and Technical Committee to review and make recommended designs for rivet patterns for Integrally Molded disc plates. The President appointed Mr. Stanley Stokes as Chairman of this Committee.

The discussion continued concerning the support of the Institute with technical information for all types of friction material; Drum brake linings, Disc brake linings; Clutch facings, and brake blocks. One Member stated that if a manufacturer was making a part as original equipment, it was not necessary to submit a detailed drawing to make an assignment. A sketch of the part with nominal dimensions (No Tolerances), and basic application information is sufficient. Import car disc brake assignments are made from sample parts with hand traced drawings and crudely measured dimensions. One Member recalled that over the years we have repeatedly requested the support of the membership, yet it seems to be "falling off". It was noted that clutch facing assignments could be made with a general sketch consisting of O.D., I.D., thickness, number of holes, drill circle, hole spacing, drill size, counterbore size through hole size and general application information.

HEALTH AND ENVIRONMENTAL AFFAIRS COMMITTEE

Ms. Rita Grisham, Chairman, delivered this report. Please refer to EXHIBIT 9 in the report booklet.

The Chairman's report was submitted as a summation of significant events during the past year.

EPA Ban Proposal - In April 1988, the new support case from the Agency was made available for public comment. FMSI as a body did not comment (since comment had been made in 1986). However, Member companies did submit comment and other interested groups. During September and October 1988, EPA advised industry that they intended to publish a Final Regulation before January 20, 1989. The draft of Final Regulation was submitted to the Office of Management and Budget on December 16, 1988. To date, six months have passed and OMB continues to assess and evaluate the draft regulation. The regulators are anticipating a "summer release".

NESHAPS (National Emissions Standard for Hazardous Air Pollutants) - proposed rulemaking for the asbestos NESHAPS has been issued. It deals with control devices, fugitive emissions monitoring, record keeping, and reporting for asbestos manufacturing and fabricating operations. It is expected that the rule will be issued in about a year.

OSHA 29CFR, Part 1910.1000 Air Contaminants - Subpart Z - on January 19, 1989 issued final rules and regulations for "hundreds" of "air contaminants". Overall, 428 substances are listed (168 for the first time, and 91 have new limits which are generally lower than the old ones).

Internationally, Ms. Grisham, noted existing rules in Austria, Denmark, Germany, Norway, and Sweden. She also noted that in Japan a product is considered asbestos-free if it contains no more than 5% asbestos.

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

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

ANNUAL MEETING COMMITTEE REPORT

Mr. Stanley Stokes, Chairman, prepared this report. Please refer to EXHIBIT 12 in the report booklet.

The Committee had obtained video tapes of Hyatt Lake Tahoe and Indian River Plantation in Stuart, Florida. Both of the video's were viewed (courtesy of VCR and TV provided by Bill Barton) by the Board of Directors. Additionally Williamsburg, VA. was discussed. The Committee recommended that next years meeting be held at Hyatt Lake Tahoe.

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

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

Per Board resolution on June 20, 1989, Indian River Plantation in Stuart, Florida is the 1990 meeting site.

HISTORICAL SALES REPORTING

The Secretary reported on the Historical Sales Program for the past year. Please refer to EXHIBIT 11 in the report booklet.

The period covered was calendar year 1988. A listing showing who reported for the four quarters of the year is part of the report. Three were more "Ins and Outs" than in previous years, with three Members reporting for the first time. They were: Duramax, Interfriction, and Total Brake Industries. The report noted that Regional Members exporting to the U.S. have been asked to participate.

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

RESOLVED: To accept the report on Historical Sales Reporting as written.

ELECTION OF OFFICERS

Mr. Sleeth advised the membership on the election of Officers for the 1989-90 fiscal year. This election took place at the meeting of the new Board of Directors which followed the June 20 session of the Annual Membership meeting. The Board elected the following Officers for the 1989-90 year:

President:	Mr. W. Max Sleeth
Vice President:	Mr. Larry Mintman
Treasurer:	Mr. Larry Belans
Secretary:	Mr. Gilbert N. Laycock

OTHER BUSINESS

Mr. Robert Nelson reviewed a discussion that had taken place at the Board of Directors meeting concerning participation and support of the Institute. To encourage participation, he recommended that a letter be sent to the CEO's (with a copy to the Delegate) of each Member company (particularly those who do not attend the Annual Meeting), explaining what the Institute does for the Members and enlisting their support through participation of the Delegate. The three major working Committees could use assistance from people who are technically qualified in the respective areas; Data Book and Technical Committee, Brake Performance Study Committee, and Health and Environmental Affairs Committee.

One Member cited problems which he was encountering on first piece inspection requirements of Government Specification HHL-361. The Institute had submitted detailed comments the last time HHL-361 was being reviewed, but no comments dealt with first piece inspection.

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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 10:00 AM, June 21, 1989

G. N. Laycock
Secretary