BULLETINS
600 - 650

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 5 0

May 4, 1979

FEDERAL LEGISLATIVE DRAFT "ASBESTOS HEALTH HAZARDS COMPENSATION ACT"

The Institute recently received a draft of a suggested "Asbestos Health Hazards Compensation Act." This draft was prepared by an industry legislative drafting committee for which Johns-Manville coordinated most of the work. Other asbestos manufacturers such as Unarco Industries and Jim Walter participated in this drafting. In most cases, it was probably legal counsel for the various corporations who worked on the draft in consultation with their technical people. The draft that we are enclosing is patterned after a House Bill, called the Fenwick Bill in the last Congress (HR8689). No action was taken on the Fenwick Bill at that time. The draft legislation proposes an asbestos type compensation plan perhaps patterned after the coal miners compensation bill. It is now being reviewed by our Asbestos Study Committee and the Board of Directors. Mr. Messier, President, asked that I distribute this to the Membership.

I talked with Mr. Jim Reis of Johns-Manville and Mr. Bob Pigg of the Asbestos Information Association on this subject. The main pressure for this may be the growing number of product liability suits which are being aimed at producers and manufacturers of asbestos products. It would be the intent of such legislation to have a fund supported by the asbestos industry, the tobacco industry, and the U. S. Government with payments based on certain formulas for those who suffer disability or death from employment-related diseases caused by asbestos. The Asbestos Information Association has no official position on this but several members obviously support it.

An industry legislative committee (not FMSI) had a meeting on April 10, 1979. In order to identify what will be termed "Class I" products, as described on page 9 of the draft, that committee recommended that "Exhibit A" listing the type of manufacturer be incorporated as the "Class I" type party. At the end of the draft you will note that "Exhibit A" (which would then become Class I parties) includes, on the bottom line, "Friction materials, automotive."

Then if you will refer to page 26 of the draft, you will find that Class I parties would be assessed a contribution amounting to $325 per ton of asbestos fiber purchased and used 15 years ago. Had friction materials manufacturers not been included on Exhibit A, which has never before been part of the legislative draft, they would then be considered a Class II party for which the assessment would be $32.50 per ton. In other words, if a certain Class I manufacturer used 10,000 tons of asbestos in his products in 1965 he would be assessed $3,250,000 in 1980. Had the friction materials manufacturer not been included in Exhibit A (which becomes Class I) the assessment would be $325,000 for the 10,000 tons of asbestos. This, of course, could be scaled down proportionately on lower usage.

There are other parts to this suggested legislation which may be of concern to members. Products imported into the United States might be somewhat difficult to control where the importer changes for a certain foreign manufacturer. In other words, the entire burden would most probably be born by a domestic manufacturer even though they attempt to write the importer into the regulations. In the proposed legislation there are provisions made for those who acquired certain entities who were manufacturing asbestos products in the past. Based on the draft, a company like Lear-Siegler would be responsible for the World-Bestos usage and the old Krasne products.

It is interesting to note that the mining and the production of asbestos is not assessed. Obviously most mining is done in Canada and United States legislation could not reach that producer. The burden is to be born by those manufacturers who use asbestos and turn it into a finished product.

It would appear that the listing of Friction Materials in Exhibit A (ClassI) groups our manufacturers with others who are distributing products primarily to the construction industry. It is known that the construction industry (shipyards) was where the first significant asbestos disability appeared. I don't believe there have been any significant claims on the part of friction materials installers concerning asbestos related disability. It would appear that the grouping of friction materials manufacturers with construction materials manufacturers is out of place. I would think that friction materials should more likely be grouped with the Asbestos Cement Pipe, Floor Tile, Paints Coating and Sealants, Gaskets and Packing and similar type product lines.

In the meanwhile, both the Asbestos Study Committee and the Board of Directors are reviewing this. If the Members wish to comment, I'd welcome written comments. Copies of the draft legislation are enclosed for all on this mailing list except Asbestos Study Committee members and the Board of Directors.

EWD/erc
Distribution: Active Members List C

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 4 9

May 3, 1979

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA) FIVE YEAR PLAN FOR MOTOR VEHICLE SAFETY RULEMAKING

On April 26, 1979 the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) published their five year plan for Motor Vehicle Safety Rulemaking. This was a 22 page document which has several references to braking systems and aftermarket brakes. A complete copy of the plan as it appeared in the Federal Register is enclosed. Many of the sections of the plan do not apply directly to brakes or brake systems but because of continuity it was felt best to include the entire document.

The first major reference to brakes appears on page 24594, where the NHTSA indicates that braking systems are the fourth area in which an "increase in efforts" is planned. Particular reference can be made to the following paragraph: "There is a wide array of problems associated with current braking systems. Some examples are different stopping distances among vehicles of various types (e.g., passenger cars and light and heavy trucks), the varied reliability and performance of aftermarket brakes, and the problems associated with inspection and diagnosis of degraded systems."

You'll note that the NHTSA is zeroing in on aftermarket brakes. In Section II, where the NHTSA presents a rulemaking schedule showing anticipated dates, through Section III which provides Cross Reference Indices, brake systems and brakes are mentioned several times. Please note the following:

> Page 24597: NHTSA plans to expand coverage of DOT 105 to light trucks, vans and multi-purpose vehicles. They will also study performance requirements for heavy duty trucks.
>
> Page 24598: The NHTSA addresses the question of brake inspectability on vehicles under 10,000# GVWR. They also indicate there that they will undertake a study for an Air Brake Systems Standard #130 for trucks, buses and trailers to replace DOT 121.
>
> Page 24601: They address the question of motorcycle brake test procedures for DOT 122.
>
> Page 24602: They mention exploratory research, and you'll notice that under crash avoidance brakes get a heavy play. They are seeking information on long range brake technology such as automatic brake adjustments, anti-lock systems and the like.

In addition to their plans for improved braking for motorcycles, and the up-grading of braking performance by the use of automatic devices, they again indicate concern for increased reliability and performance of aftermarket brake shoe and pad assemblies. This is coupled also with consideration of longer-life braking systems. These items under exploratory research could have the most impact on

friction materials manufacturers servicing the aftermarket. There are further references to brake inspectability and up-grading of hydraulic brake systems and a complete index at the rear indicating the status on actions that have been taken and proposed rulemaking in the future.

The Brake Performance Study Committee reviewed this five year plan and suggested distribution to the membership. If there are notices of proposed rulemaking in the future the Institute through this Committee will comment directly to the National Highway Traffic Safety Administration. The foregoing information is passed along for your information.

EWD/erc
Distribution: List B

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 4 8

May 2, 1979

MASTER LIST OF CLUTCH FACING SIZES

In 1974 the Institute published two catalogs for clutch facings. One was entitled "Clutch Facings" and included a list of all FMSI clutch facing numbers in numerical order. The booklet showed the FMSI number, the manufacturer's part number, if available, and the nominal size and drilling. That same year we published an additional booklet entitled "Clutch Facings Listed in Order of Size." In this booklet the sequence was strictly by size which then showed the FMSI number for that size.

We are now supplementing that information by listing all clutch facings released by FMSI since those catalogs were published. There are 31 additional clutch facing assignments.

FMSI®	SIZE	DRILLING	CROSS REFERENCE	
786	7-51/64 x 5-17/32 x .100	34 Teeth	IHC	654594C1
787	7- 7/8 x 5- 1/8 x .165	16 GrAStr		
788	7- 1/2 x 5- 9/32 x .138	16 GrAStr	Borg & Beck	165-10559
789	7- 3/32 x 4-23/32 x .118	16 GrAStr		
790	7- 3/32 x 4-23/32 x .138	16 GrAStr		
791	7- 3/32 x 5- 5/32 x .135	16 GrAStr	Borg & Beck	178-10185
792	7- 3/32 x 4-59/64 x .125	18 GrAStr		
793	7-31/64 x 5- 5/16 x .126	16 GrAStr		
804A	8 x 5- 3/4 x .130	20 GrAStr		
821D	8 x 5- 3/8 x .130	16 GrAStr		
8026C	8-15/32 x 5-45/64 x .157	16 GrAStr		
8038	8- 1/4 x 5-23/32 x .150	16 GrAStr		
8039	8-15/32 x 5-29/32 x .138	18 GrAStr		
8040	8- 1/2 x 5-43/64 x .153	16 GrAStr		
9033	9- 1/2 x 6- 3/8 x .150	36 DGAP		
9034	9- 5/32 x 6- 1/8 x .150	32 DGAP		
9034A	9- 5/32 x 6- 1/8 x .150	36 DGAP		
1006B	10 x 6- 3/4 x .150	32 DGAP	Borg & Beck	165-10436
1092A	10- 1/2 x 6- 1/2 x .115	40 DGAP	Borg & Beck	165-10262
10,012	10- 1/2 x 7- 3/8 x .112	45 Teeth	IHC	658354C1
10,013	10-13/16 x 6-29/32 x .138	32 DGAP		
10,014	10- 3/8 x 6- 1/2 x .125	28 DGAP	Rockford	CL-12391-24
10,015	10-11/32 x 6- 1/2 x .135	40 DGAP	Borg & Beck	
1142K	11 x 6- 1/2 x .138	36 DGA3		
1181A	11- 1/2 x 7 x .137	32 DGAP	Long	C-42-230
1277A	12- 7/8 x 7 x .165	60 TGAP	Dana	114-C-264
1278	12- 7/16 x 8- 3/4 x .168	36 Teeth	IHC	659761C1
1279	12- 3/16 x 6- 7/8 x .173	40 DGAP		
1380A	13- 7/8 x 8- 3/8 x .207	40 DGAP	Dana	114-C-224-2
1629	16- 9/16 x 12- 3/4 x .168	52 Teeth	IHC	659746C1
2002	20-11/64 x 15-35/64 x .155	160 Teeth	Fiat-Allis	70094868

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FRICTION MATERIALS STANDARDS INSTITUTE, E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 4 7

April 17, 1979

APPLICATION FOR ACTIVE MEMBERSHIP FROM THE GUARDIAN CORPORATION BRIGHTON, MASSACHUSETTS

In a recent issue of "Brake and Front End Service" there was an article advising that the Guardian Corporation, which is a major supplier of assembled parts to the brake replacement market, was entering the manufacturing of linings. The article indicated that Guardian was now manufacturing a considerable number of there own disc brake pads for the aftermarket.

Subsequent to the article I had correspondence and a phone conversation with Mr. Norman Morse, President of the Guardian Corporation, considering the possibility of their application for Active Membership in the Institute. This is to advise the Membership that I have now received an application, which appears to be in good order, from the Guardian Corporation for Active Membership. This application is now being reviewed by the Membership Committee who will advise the Board of Directors as regards their recommendations. After this has been reviewed by both the Membership Committee and the Board of Directors a mail ballot will be placed on the Active Members.

This bulletin is simply to inform the Membership that this application has been received. There is no action to be taken by the Membership at this time.

E. W. Drislane
Executive Director

Distribution: Active Members List A

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 4 6

April 10, 1979

DECLARATION RE PRODUCT CATEGORIES

FOR

FEE FORMULA BASIS

According to our Constitution and By-Laws, the Fee Formula for Active Members must be reviewed annually. Data on categories is accumulated and reported to a Fee Formula Committee and to the Board of Directors who then make recommendations on the fee schedule to the Membership.

As a member may be engaged in a category one year and not the following (or the reverse) declarations must be filed annually in order to arrive at a proper fee formula and category assessment.

At the June 1975 meeting, the Board of Directors resolved that category filing information will no longer be confidential. This change was reviewed by Counsel and put into effect for fiscal 1976-77. All categories in which your firm is engaged must be reported. Category filing information will be assembled and reported in summary form to the Membership.

Would you kindly complete and return one copy of the attached form to the Institute Office. We will prepare a summary to assist the Fee Formula Committee and the Board of Directors in establishing the fee formula for the fiscal year starting July 1, 1979.

Filing categories are unchanged from those of recent years. Refer to the "Explanation of Category Filing" attached to the form. If you have questions, please give me a call.

Kindly return your declaration by April 25, 1979. A stamped return envelope is enclosed with the Delegate's copy.

EWD/erc
Encs.

E. W. Drislane
Executive Director

Active Members - List F

FMSI 17547

Friction Materials Standards Institute, Inc.
E-210 Route 4
Paramus, New Jersey 07652

Gentlemen:

In response to Bulletin #646 of April 10, 1979 concerning the declaration of information to be used in determining the fees, our company is engaged as follows:

Category	We sell to the domestic replacement market:
Brake Lining - Under 3/4" Nominal, Including Disc Brake Linings	( )
Brake Blocks - 3/4" Nominal or over	( )
Clutch Facings	( )
Brake Shoes - New Unlined, Including New Unlined Disc Brake Shoes	( )

Affix an "X" in the square to the right of the category or categories your company is engaged in.

Signature_____

Company_____

Date_____

Kindly return declaration to the Institute Office by April 25, 1979.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

EXPLANATION OF CATEGORY FILING

General - A member must be engaged in at least one of the first three categories, in order to be a member. The number of categories checked is used to determine the fees paid during the next fiscal year. Any member not filing this information correctly will be assessed the full fee for all categories.

Confidentiality - The fee category information is no longer confidential. The data will be reviewed by the Board of Directors to determine its reasonableness. Summary results will be distributed to the Membership.

"Our Company is Engaged as follows:" - If a member manufactures and sells, purchases and sells, or both purchases and manufactures, and sells the product indicated in the replacement market, he is "engaged" in that category. In other words, if he sells that product he is engaged in that category. Further, the replacement market includes automotive, industrial, and off road equipment--where Friction Materials Standards Institute, Inc. performs a service, either through cataloguing, assignment of copyrighted FMSI numbers, or the maintaining of prints. If a member sells a certain product type, but only to market where FMSI does not provide services, he does not report that category. Where a member sells a certain product only to a market where there are FMSI services available, but he declines to use these services, he must report that category.

Brake Lining - Under 3/4" Nominal, Including Disc Brake Linings - This includes linings whether loose, attached to shoes, or in roll form, sold to market where the FMSI numbering system is available.

Brake Blocks and Disc Brake Linings - 3/4" Nominal and Over - This includes brake blocks, whether loose or attached to shoes, sold to markets where the FMSI numbering system is available. The 3/4" nominal includes tapered blocks with a maximum thickness of approximately .700", with minimum thickness below .500". This also includes disc brake linings 3/4" and over, measuring lining thickness only at its thickest point. When measuring a lined shoe, to determine lining thickness, measure from the top of the shoe.

Clutch Facings - This includes loose facings or facings attached to plates, sold to markets where the FMSI numbering system is available.

Brake Shoes - New Unlined, Including New Unlined Disc Brake Shoes - This category includes new and unlined shoes (whether drum or disc type) which are sold as new and unlined shoes in the replacement market. If all the new and unlined shoes are sold as lined shoe assemblies, do not report this category.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 4 5

April 2, 1979

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first quarter of 1979 (3 months ending March 31, 1979). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to

Marshall Granger & Company, CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by May 15, 1979. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enc:
Distribution - Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

Marshall Granger & Co., CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

3 MONTHS JANUARY 1 to MARCH 31, 1979

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over. _____

SAMPLE
FORM

Disc Brake Linings _____

Clutch Facings _____

THIS PERCENTAGE FORM TO BE SENT BY ACCOUNTANTS

Total Pieces _____

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 4 4

March 23, 1979

TECHNICAL CORRECTION--1979 MUSTANG/CAPRI RELEASE OF 7083A DISC FRONTS

In DATA BOOK BULLETIN NO. 282, the Institute released a new disc brake assignment for the 1979 Ford Mustang and Mercury Capri. The new disc fronts were FMSI 7083A. When the lining prints were distributed to members, the Institute sent prints of a semi-metallic lining. This semi-metallic lining had different drilling from the basic organic release for these cars. That semi-metallic lining is used as original equipment on the Ford Mustang/Mercury Capri with the 2.3 liter engine, with turbocharger only. The regular 2.3 liter (4 cyl.) and 2.8 liter (6 cyl.) cars were equipped with conventional organic linings with a different drilling.

We are now changing our release. We are assigning the FMSI 7083A lining number to the organic release, and assigning a new FMSI 7083B number for the semi-metallic release (which had formerly been assigned 7083A). The new releases will be as follows:

	Front		Rear	
1979 Ford Mustang and Mercury Capri (4's and 6's)	7083A	Disc	2151T	BH
1979 Ford Mustang and Mercury Capri (4's w. turbo)	7083B (Note #1)	Disc	2151T	BH

Note #1 FMSI #7083B

Disc 36.5 x 11.2 x 130	2	-	12
34.5 x 9.3 x 153	2	-	12
(1.44 x .440 x 5.12)			
(1.36 x .365 x 6.02)			

This correction will be shown in the next DATA BOOK BULLETIN. Copies of "new" 7083A (organic) and the 7083B (semi-met) are enclosed for those normally requesting disc brake lining drawings.

EWD/erc

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

NO. 6 4 3

February 27, 1979

1979 SUPPLEMENT TO THE 1978 BRAKE SHOE IDENTIFICATION CATALOG

The contract for the printing of the "1979 Supplement to the 1978 Brake Shoe Identification Catalog" has been awarded to:

Corley Printing Co.
9804 Page Boulevard
St. Louis, MO 63132

This Supplement will contain 32 pages with self-cover.

On an estimate of the total order being 30,000 copies of this 32 page book, the price is:

$144.00/M
$ 2.80/M additional for five hole punching

If there is a change in the price per thousand due to a change in number of pages or to change in order quantities, or for author's alterations, you will be notified.

Please forward all orders to the Institute Office. Do Not send them to the printer. (British Council and FMSI Canada members send to your respective associations). This is our only means of checking the total quantities ordered and the price charged, as well as whether only members are ordering.

All orders for more than 200 copies should be made out to Corley Printing Co. and state punching and shipping instructions. Orders for 200 copies or less should be made out to the Institute. If applicable, please advise any special instructions necessary to ship through your customs.

Kindly forward your orders so that they reach the Institute Office by March 30, 1979.

E. W. Drislane
Executive Director

Distribution: Active Members - List - D
Regional Members
Licensees

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 4 2

February 20, 1979

ADDITIONS TO CROSS-REFERENCE

This cross-reference listing is the latest supplement to BULLETIN NO. 536 published on July 15, 1975. That 1975 Bulletin combined all brake lining and clutch facing cross-reference since the first (September 1963) cross-reference listing. This bulletin also includes all additions shown in BULLETIN NO. 599 of April 15, 1977. With this issue, there are now three general cross-reference listings (brake linings and clutch facings):

Original Cross Reference	September 1963
BULLETIN NO. 536	July 15, 1975
BULLETIN NO. 642	February 20, 1979

This listing does not include brake shoes for which the last listing was BULLETIN NO. 540 of July 28, 1975. With the issue of BULLETIN NO. 641 of this date, incorporating all shoes since the 1975 bulletin, there are now two bulletins covering shoe cross-reference.

BULLETIN NO. 540	July 28, 1975
BULLETIN NO. 641	February 20, 1979

We caution that most of this cross-reference data is for original equipment and while some may use the same part number for service, many do not.

E. W. Drislane
Executive Director

Active Members - List E
Regional Members

ALMA*

Part #	FMSI No.
164-12304	8039

BENDIX

Part #	FMSI No.	Part #	FMSI No.
1,153,201	7054 (I)	2,238,757	7082A (O)
1,153,202	7054 (O)	2,238,759	7082A (O)
1,153,216	7053 (I)	2,238,760	7082A (I)
1,153,217	7053 (I)	2,238,762	7082A (I)
1,153,218	7053 (O)	3,202,730	2163T (s)
1,153,263	7083A (O)	3,202,733	2163T (1)
1,153,264	7083A (I)	3,203,525	2135T (s)
1,153,266	7072B (I)	3,203,529	2135T (1)
1,153,267	7083A (O)	3,205,820	2162 (s)
2,235,205	7024B (O)	3,205,821	2162 (s)
2,235,206	7024B (O)	3,205,823	2162 (s)
2,238,490	7024B (I)	3,205,825	2162 (1)
2,238,491	7024B (I)	3,205,826	2162 (1)
2,238,492	7024B (I)	3,205,827	2162 (1)
2,238,703	7081A (I)	3,206,313	2161TT (s)
2,238,704	7081A (I)	3,206,315	2161TT (1)
2,238,746	7081A (I)	3,206,317	2089AT (s)
2,238,747	7081A (I)	3,206,319	2089AT (1)
2,238,756	7082A (O)		

BORG & BECK*

Part #	FMSI No.	Part #	FMSI No.
165-10006	8025A	165-10435	1005A
165-10173	1037F	165-10436	1006B
165-10262	1092A	165-10519	1061
165-10263	1095	165-10532	1005B
165-10301	1275	178-10185	791
165-10347	791	178-10186	791

CHEVROLET

Part #	FMSI No.	Part #	FMSI No.
357,883	2159TT	457,767	7053 (I)
357,884	2159TT	457,768	7053 (I)
361,767	1337	457,769	7053 (O)
367,549	2073T	459,731	1337
367,550	2073T	3,927,129	10,015*

* Clutch Facing

CHRYSLER

Part #	FMSI No.	Part #	FMSI No.
3,880,815	7017A (I)	3,880,873	7018A (O)
3,880,816	7017A (O)	5,204,304	1315
3,880,818	7017A (I)	5,204,305	1315
3,880,819	7017A (O)	5.204,309	1315
3,880,864	7018A (I)	5,204,316	1315
3,880,865	7018A (I)	5,204,324	1315
3,880,866	7018A (O)	5,204,325	1315
3,880,867	7018A (O)	5,204,333	1315
3,880,868	7018A (I)	5,204,334	1315
3,880,869	7018A (O)	5,204,467	1315
3,880,870	7018A (I)	5,204,468	1315

DANA*

Part #	FMSI No.
114-C-305	1267

DELCO-MORAINE

Part #	FMSI No.	Part #	FMSI No.
2,633,693	7055	18,003,118	7070A (O)
5,474,999	2117TT (s)	18,003,191	2117ATT (1)
18,000,210	2117TT (1)	18,003,314	7071
18,002,701	7055	18,003,541	7084A (O)
18,003,117	7070A (I)	18,003,643	7084A (I)

EATON

Part #	FMSI No.	Part #	FMSI No.
B-1724	4515	43,908	4317G
B-1727	4552	44,608	4317G
B-1729	4552	53,747	4317G
B-1731	4515	53,749	4317G
B-1794	4375	57,555	4317G
B-1831	4591	1,000,239	4527C
B-1904	4591	1,000,751	4223A
B-1909	4551	1,000,752	4223A
B-1910	4551	1,000,863	4570
B-1990	4375	1,001,041	4317G
B-2240	4470	1,001,042	4317G

* Clutch Facing

FORD

Part #	FMSI No.	Part #	FMSI No.
C-87Z-2284-L	4646	D-60A-2285-AA	2161TT (1)
D-4VA-2285-AA	2081TT (1)	D-60A-2285-BA	2161TT (1)
D-4VA-2285-BA	2081TT (1)	D-60A-2285-CA	2161TT (1)
D-4VA-2285-CA	2081TT (1)	D-8BC-2284-AA	2151T (s)
D-5DA-2284-AA	2135T (s)	D-8BC-2284-BA	2151T (s)
D-5DA-2285-AA	2135T (1)	D-8BC-2284-CA	2151T (s)
D-5DA-2285-AA	2135AT (1)	D-8BC-2285-AA	2151T (1)
D-5DA-2285-BA	2135AT (1)	D-8BC-2285-BA	2151T (1)
D-5DA-2285-CA	2135AT (1)	D-8BC-2285-CA	2151T (1)
D-5SA-2284-AA	2081TT (s)	D-8BC-2021-AA	7072A (1)
D-5SA-2284-BA	2081TT (s)	D-8BC-2022-AB	7072A (O)
D-5SA-2284-CA	2081TT (s)	D-9AC-2021-AA	7082A (O)
D-5OA-2284-AA	2161TT (s)	D-9AC-2022-AA	7082A (I)
D-5OA-2284-BA	2161TT (s)	D-9AC-2284-DA	2089AT (s)
D-5OA-2284-CA	2161TT (s)	D-9AC-2285-DA	2089AT (1)
D-6DA-2284-AA	2135AT (s)	D-9AC-2284-GA	2161TT (s)
D-6DA-2284-BA	2135AT (s)	D-9AC-2285-GA	2161TT (1)
D-6DA-2284-CA	2135AT (s)	D-9BC-2022-AA	7072B (I)
D-6TA-2019-DA	7054 (I)	D-9ZL-7549-A	1061*
D-6TA-2018-DA	7054 (O)	D-9ZL-7549-B	1061*

INTERNATIONAL HARVESTER

Part #	FMSI No.
233,007R91	2085
389,430C97	10,014*

KELSEY-HAYES

Part #	FMSI No.
101590	7072B (I)
101640	7083A (O)
101643	7083A (I)

LONG*

Part #	FMSI No.
C-42-128	1442*
C-42-230	1181A*

* Clutch Facing

ROCKFORD*

Part #	FMSI No.
CL-12391-24	10,014
CL-12391-148	10,014

ROCKWELL

Part #	FMSI No.	Part #	FMSI No.
2240-A-1821	4623	2240-G-3205	4549C
2240-A-2471	17,741	2240-H-3180	17,743
2240-A-2289	4561B	2240-H-3206	4549C
2240-A-2575	4654	2240-H-3388	4549C
2240-A-2783	4515E	2240-J-2558	4541B
2240-A-2965	4515G	2240-J-2584	4398B
2240-A-3199	4514G		
2240-A-3459	4549C	2240-J-3182	17,743
2240-B-1978	4621	2240-J-3208	4549C
2240-B-2290	4561B	2240-J-3234	4549C
2240-B-3200	4514G	2240-J-3338	4551E
2240-B-3408	4514G	2240-J-3390	4549C
2240-B-3460	4549C	2240-K-1987	4623
2240-C-1823	4623	2240-K-3053	4514G
2240-C-1979	4621	2240-K-3209	4549C
2240-C-3201	4549C	2240-K-3235	4549C
2240-C-3409	4514G	2240-K-3339	4551E
2240-C-3487	4549C	2240-L-1988	4623
2240-D-1538	4514G	2240-L-3054	4514G
2240-D-1824	4623	2240-L-3210	4549C
2240-D-1980	4621	2240-L-3340	4551E
2240-D-2656	17,741	2240-M-1989	4623
2240-D-2812	4541B	2240-M-3055	4514G
2240-D-3202	4549C	2240-M-3211	4549C
2240-D-3488	4549C	2240-M-3341	4551E
2240-E-1539	4514G	2240-N-1990	4623
2240-E-1981	4621	2240-N-3056	4514G
2240-E-2553	4592A	2240-N-3212	4549C
2240-E-3203	4549C	2240-N-3342	4551E
2240-E-3489	4551E	2240-N-3420	4549C
2240-F-2632	4541B	2240-N-3472	4644A
2240-F-3204	4549C	2240-P- 3058	4514G
2240-F-3490	4551E	2240-P-3214	4549C
2240-G-2451	17,731A	2240-P-3344	4551E
2240-G-2555	4398B	2240-P-3422	4549C

* Clutch Facing

ROCKWELL (Cont'd)

Part #	FMSI No.	Part #	FMSI No.
2240-P-3474	4644A	2240-V-3272	4666
2240-Q-3059	4514G	2240-W-3013	4666
2240-Q-3215	4549C	2240-W-3039	4666
2240-Q-3241	4514G	2240-W-3273	4666
2240-Q-3267	4515G	2240-W-3455	4644A
2240-Q-3371	17,743	2240-X-2806	4227E
2240-Q-3397	4551E	2240-X-3040	4666
2240-R-2566	4592A	2240-X-3456	4644A
2240-R-3060	4514G	2240-Y-2287	4561B
2240-R-3138	4514G	2240-Y-2859	4667
2240-R-3216	4549C	2240-Y-3197	4514G
2240-R-3242	4514G	2240-Y-3327	17,743
2240-R-3268	4515G	2240-Z-2288	4561B
2240-R-3372	17,743	2240-Z-2574	4654
2240-R-3398	4551E	2240-Z-2782	4515E
2240-S-3061	4514G	2240-Z-2860	4667
2240-S-3139	4514G	2240-Z-2964	4515G
2240-S-3217	4644A	2240-Z-3198	4514G
2240-S-3269	4665		
2240-S-3373	4665		
2240-S-3399	4666		
2240-T-2646	4654		
2240-T-3062	4514G		
2240-T-3140	4514G		
2240-T-3166	4514G		
2240-T-3218	4644A		
2240-T-3270	4665		
2240-T-3374	4666		
2240-T-3400	4666		
2240-U-2387	17,731A		
2240-U-2647	4654		
2240-U-3037	4665		
2240-U-3063	4514G		
2240-U-3141	4514G		
2240-U-3167	4514G		
2240-U-3219	4644A		
2240-V-3012	4665		
2240-V-3038	4667		
2240-V-3194	17,743		
2240-V-3220	4644A		

ROCKWELL (Cont'd)

Part #	FMSI No.	Part #	FMSI No.
Start 2740 Series:			
2740-A-1301	4633B	2740-P-1758	4668
2740-A-1691	1297	2740-Q-459	1139B
2740-B-1302	4633B	2740-Q-1473	1297
2740-B-1692	1297	2740-Q-1759	4668
2740-C-1693	1297	2740-Q-4073	17,744
2740-D-1694	1297	2740-R-1474	1297
2740-E-5127	4515E	2740-R-1760	4668
2740-F-5128	4515E	2740-R-4074	17,744
2740-L-454	1139B	2740-S-1761	4668
2740-M-455	1139B	2740-S-4075	17,744
2740-M-1755	4668	2740-T-332	17,742
2740-N-456	1139B	2740-T-4076	17,744
2740-N-690	17,742	2740-U-333	17,742
2740-N-1756	4668	2740-V-334	17,742
2740-P-458	1139B	2740-W-335	17,742
2740-P-692	17,742	2740-X-5146	17,737

STANDARD FORGE & AXLE

Part #	FMSI No.	Part #	FMSI No.
213,132	4536B	213,136	4591A
213,133	4536B	213,137	4591A
213,134	4661	213,140	4660
	4661A	213,141	4660
213,135	4661		
	4661A		

VOLKSWAGEN

Part #	FMSI No.	Part #	FMSI No.
171-609-537B	1316	331-609-537	1355
171-698-151B	7044	827-609-537	8129
171-698-151C	7044		

WAGNER

Part #	FMSI No.
FE-97766A	2151T (s)
FE-97769A	2151T (1)

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 4 1

February 20, 1979

This is a supplement to the cross reference listing for brake shoes, the original listing being BULLETIN NO. 540 of July 28, 1975. This supplement includes all shoes since the 1975 listing, including those listed in the 1977 supplement (BULLETIN NO. 600 of April 18, 1977).

BENDIX

Part	FMSI No	Part	FMSI No	Part	FMSI No
321,591	314	2,238,658	D-150 (O)	3,204,478	263
321,599	316	2,238,661	D-150 (O)	3,204,502	264
1,153,203	D-120	2,238,698	D-150 (I)	3,204,692	314L
1,153,211	D-119 (I)	2,238,699	D-150 (I)	3,204,693	314R
1,153,212	D-119 (O)	2,238,705	D-149 (I)	3,205,797	474
2,230,362	D-129 (O)	2,238,706	D-149 (I)	3,205,798	474
2,230,363	D-129 (O)	3,201,924	152	3,205,822	475
2,238,147	D-89 (I)	3,202,576	263	3,206,215	481
2,238,147	D-129 (I)	3,202,583	264	3,206,269	482
2,238,148	D-89 (I)	3,204,378	316L	3,206,270	482
2,238,148	D-129 (I)	3,204,379	316R		

CHEVROLET

Part	FMSI No	Part	FMSI No	Part	FMSI No
355,893	451	357,885	449	457,772	D-119 (O)
355,889	452	361,764	447	3,987,472	442
357,866	450	457,771	D-119(I)		

CHRYSLER

Part	FMSI No	Part	FMSI No	Part	FMSI No
3,638,329	D-123 (O)	3,880,634	446	5,204,308	476
3,638,331	D-123 (I)	3,880,862	D-85 (I)	5,204,469	476
3,880,633	445	3,880,863	D-85 (O)	75,061,059	396

DELCO-MORAINE

Part	FMSI No	Part	FMSI No	Part	FMSI No
468,685	473	18,001,568	462	18,002,762	D-154 (I)
2,621,184	D-122 (I)	18,001,617	462	18,002,763	D-138 (I)
2,623,691	D-121 (I)	18,002,224	472	18,002,763	D-154 (I)
2,623,696	D-121 (O)	18,002,492	D-138 (O)	18,003,544	D-153 (O)
5,472,307	D-122 (O)	18,002,762	D-138 (I)	18,005,798	D-153 (I)
18,000,176	448				

(Over--for additional copy)

FORD

Part	FMSI No	Part	FMSI No	Part	FMSI No
C20A-2220-G	152	D8BC-2B300-AD	D-140 (I)	D9AC-2B300-AB	D-150 (I)
D3AA-2220-DB	264	D8BC-2C089-AC	D-140 (O)	D9AC-2C089-AB	D-150 (O)
D3AA-2220-EB	263	D8BC-2C089-AC	D-152 (O)	D9BC-2B300-BA	D-152 (I)
D5RY-2200-B	471	D8BC-2C097-AD	D-140 (I)	D9BC-2C097-BA	D-152 (I)
D6RY-2200-A	470	D9AC-2220-AA	481	D9ZC-2B114-AB	D-151 (O)
D77Z-2001-A	D-76	D9AC-2220-BA	482	D9ZC-2C089-AB	D-151 (O)
D8BC-2B114-AC	D-140 (O)	D9AC-2220-DA	482	D9ZC-2C097-AB	D-151 (I)
D8BC-2B114-AC	D-152 (O)	D9AC-2B114-AB	D-150 (O)		

KELSEY-HAYES

Part	FMSI No	Part	FMSI No	Part	FMSI No
099932	D-152 (O)	101167	D-150 (O)	101212	D-151 (I)
099932	D-140 (O)	101172	D-150 (I)	101671	D-152 (I)
099939	D-140 (I)	101206	D-151 (O)		

VOLKSWAGEN

Part	FMSI No	Part	FMSI No	Part	FMSI No
171-609-537B	454				
331-609-537	453				

WAGNER

Part	FMSI No	Part	FMSI No	Part	FMSI No
FE32,462	455	FE32,479	463	FE88,633	458

Routing:
Active Members - List E
Regional Members
Licensees

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-219 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 4 0

February 2, 1979

ORDERS FOR THE 1979 AUTOMOTIVE DATA BOOK

The contract for the printing of the "1979 Automotive Data Book" has been awarded to:

Success, Inc.
1345 West 16th Street
Indianapolis, IN 46202

It is believed that it will contain 112 pages plus cover.

On an estimate of the total order being 70,000 copies of a 112 page book, the preliminary price is:

$480.00 per M
13.60 per M additional for five hole punching

If there is a change in the price per thousand due to a change in number of pages or to changes in order quantities, or for author's alterations, you will be notified.

Please forward all orders to the Institute Office. Do not send them to the printer. (British Council and FMSI Canada members send to your respective associations). This is our only means of checking the total quantities ordered and the price charged, as well as whether only members are ordering.

The orders should be made out to Success, Inc., and should state punching and shipping instructions. If you have special instructions such as "no cover" please indicate if you wish "no stitch" and "no trim." If applicable, please advise any special conditions for shipping through your customs.

Please forward your orders so that they reach the Institute Office by March 1, 1979.

EWD/erc

E. W. Drislane
Executive Director

Distribution: Active Members - List D
Regional Members

FMSI 17564

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 3 9

January 31, 1979

MANUFACTURERS AND LABORATORIES WITH PRODUCTS OR SERVICES FOR CONTROLLING ASBESTOS

In order to reply to inquiries that we receive concerning questions such as laboratories for asbestos counts or manufacturers of vacuum equipment for use in an asbestos environment, we have made tabulations of certain manufacturers or laboratories involved in these areas. I'm enclosing listings that we have on file with addresses for these laboratories and/or manufacturers. The information that we have is as follows:

1. Laboratories for asbestos consultation and/or asbestos fiber counts.
2. Manufacturers of reusable respirators.
3. Manufacturers of disposable respirators.
4. Manufacturers of vacuum equipment intended for use in controlling asbestos waste.
5. Manufacturers of equipment intended for collecting brake lining dust.
6. Manufacturers of disposable protective clothing.

I'm enclosing copies of these lists which might be helpful to your environmental or occupational health people to answer any inquiries as to sources of equipment or services. In the past, we listed indicated prices and individuals to contact for the asbestos counts. However, we are dropping this as these factors have been changing so rapidly. We suggest that anyone wishing to contact one of the manufacturers or laboratories write to the address indicated or seek the telephone number from the telephone company. The foregoing is for your information.

E. W. Drislane
Executive Director

Distribution: Active Members - List C
Regional Members
Licensees

FMSI 17565

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 638

January 16, 1979

1979 BRAKE BLOCK IDENTIFICATION CATALOG

In BULLETIN NO. 632 we solicited orders for the new 1979 BRAKE BLOCK IDENTIFICATION CATALOG. The printer (Tweddle Litho Company) is now shipping catalogs to those who placed orders. We are enclosing a sample copy of the new catalog.

There will be a price reduction from that quoted, as we ended up ordering over 50,000 copies. The final price will be:

$225.00/M
9.25/M for punching

There are additional copies on hand over those ordered. If anyone wishes to order copies--not already ordered--their Purchase Order should be made out to the Friction Materials Standards Institute, and mailed to the Institute Office in Paramus.

Please let your Purchasing Department know of this price reduction.

EWD/erc
Enc:
Distribution-Active Members
(List D)
Regional Members

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 3 7

January 10, 1979

DUR-BLOC S.A. OF LIMA, PERU--REGIONAL MEMBERSHIP

This is to advise the Membership that Dur-Bloc S.A. of Lima, Peru has been voted into Regional Membership. We will make their effective date of Membership January 1, 1979.

It is necessary to have 75% affirmative vote of Active Members in order to accept a new member. We have now received the necessary 14 affirmative votes on acceptance of the Dur-Bloc S.A. application for Regional Membership.

Dur-Bloc S.A. is paying the higher Membership fee assessed on Active Members. They will be engaged in one category: brake linings. They will have permission to use the copyrighted FMSI numbers and the Institute trademarks in marketing their products worldwide.

This notice is sent as a item of information to the Membership.

E. W. Drislane
Executive Director

CC: Active Members - List A

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 636

January 5, 1979

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI© Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the full calendar year 1978 (12 months ending December 31, 1978). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received, and the names of members reporting in each of the four groups.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

While there is no change in your reporting to the Accountants, there will be a change in the form of the report to be rendered by the Accountants. Based on resolutions at the June 1976 membership meeting, for the annual report only, the Accountants will be asked to list the names of the members reporting in each product line. (On the quarterly reports, they have been listing only the members reporting without indicating who reported by product line).

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to:

Marshall Granger & Company, CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by February 15, 1979. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Encs:
Distribution: Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

12 MONTHS JANUARY 1 to DECEMBER 31, 1978

Brake linings less than 3/4" nominal thickness (See explanation for roll lining), _____

Brake blocks, nominal thickness of 3/4" and over _____

Disc Brake Linings _____

Clutch Facings _____

Total Pieces _____

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 3 5

November 22, 1978

DUR-BLOC, S.A., of LIMA PERU

This is to advise the Membership that the Institute has received an application for Regional Membership from Dur-Bloc, S.A., of Lima, Peru.

Earlier this month Dur-Bloc's General Manager, Mr. Marcos Ludmir Wolfenzon, was in the United States and inquired about Regional Membership. Soon thereafter I received the Dur-Bloc, S.A. application.

According to Mr. Ludmir W., Dur-Bloc manufactures friction materials in Peru, and has sales of about $2,000,000 of friction materials. In addition to this manufacturing activity, Dur-Bloc, S.A. imports and distributes in Peru automotive products manufactured elsewhere. He mentioned Federal-Mogul and Wagner Electric in the United States as suppliers.

Mr. Ludmir W. indicated that Dur-Bloc, S.A. plans exporting disc brake linings internationally including the United States. I advised that to do so using the copyrighted FMSI numbers and the FMS and FMSI trademarks that Dur-Bloc would be assessed the same annual fee schedule that Active Members pay, and for one category (brake linings) this would be $1,700 per year.

The Dur-Bloc application was received with the prepayment of the first year annual dues. The application, upon receipt, was sent to the Membership Committee for its review. If its acceptance is recommended by the Committee, the Board of Directors and finally the Membership will review and vote on this application.

There is no action required of the Membership at this time. The foregoing is sent as a matter of information.

EWD/erc
Distribution-Active Members-List A

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 3 4

November 16, 1978

FRICTION MATERIALS WORK PRACTICES GUIDE

On September 12, 1978 we asked Active Members concerning interest in a "Friction Materials Work Practices Guide." This guide will be a small 5-1/2" x 8-1/2" or 6" x 9" booklet with 12 pages. It is aimed at the brake shops and medium size customers handling brake linings and clutch facings. The message has to do with good work practices and handling friction materials. In particular, it emphasizes that the worker should not use an air hose to blow dust from brakes and he should use the proper dust collection equipment if he is machining brake linings or clutch facings. It also has suggestions on respirator usage. Some of the suggestions in the booklet are in line with those made in a NIOSH Alert and in some cases quote directly from the OSHA standard for controlling asbestos in the workplace.

There are actually only five pages of text along with five illustrations opposite each page. The front cover has an illustration and of course the title. The rear cover indicate sources of additional information for some of the items mentioned in the text. This will be a professional booklet somewhat similar to a booklet which was put out by the Asbestos Cement Pipe Producers Association. It's usage is primarily in the brake shop as I indicated earlier.

Based on Member interest, we will order in quantities above 30,000, and based on that volume projection the booklet will be priced at 9¢ (U.S. $.09) per copy. We now have final copy and are ready for printing.

Would you please place your order for these booklets on:

Friction Materials Standards Institute
East 210 Route 4
Paramus, New Jersey 07652
U.S.A.

In order to expedite this shipment we are asking that you have your purchase order into the Institute Office by December 1, 1978.

EWD/erc
Distribution- Active Members- List C
Regional Members
Licensees

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 3 3

November 14, 1978

REGULATORY ACTIONS CONCERNING ASBESTOS

Over the past several weeks the Institute has received correspondence concerning activity by Federal regulatory agencies as concerns asbestos. Some of these activities are described in this bulletin.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) DIRECTIVE AS CONCERNS EXPOSURE AND MEDICAL EXAMINATIONS

I have copied from an Asbestos Information Association "News and Notes" of October 31, 1978 concerning this subject. In essence, OSHA issued a directive to its Regional Administrators concerning compliance with the medical examination requirements of the standard. This is an attempt by OHSA to answer the question as to what consists of exposure to airborne concentrations of asbestos in the workplace. They are advising their Regional Administrators that concentrations of 0.1 asbestos fibers (or more) larger than 5 micrometers per cubic centimeter will be considered exposure to asbestos fibers. If these exposure levels are 0.1 or more, medical examinations are required.

You may wish to refer to the text as forwarded by the Asbestos Information Association.

CONSUMER PRODUCT SAFETY COMMISSION (CPSC) MEMORANDUM CONCERNING ASBESTOS IN CONSUMER PRODUCTS

Mr. Jim Reis of Johns-Manville sent along a Consumer Product Safety Commission memorandum concerning asbestos. This report based its recommendations on the Kearney report which was made to identify consumer products containing asbestos. In the Kearney review of products it was their conclusion that friction materials containing asbestos are not likely to be considered a consumer product because they are not under the jurisdiction of the Consumer Product Safety Commission. This CPSC memorandum concentrated in the areas of bulk asbestos fiber and dry mix texture paints containing asbestos for consumer usage. This report also discussed exposure to asbestos from ceilings and other structural surfaces. Friction materials were not marked for further Consumer Product Safety Commission study.

ENVIRONMENTAL PROTECTION AGENCY (EPA) REVIEW ON ASBESTOS

The Environmental Protection Agency's office of toxic substances has concluded a lengthy report on asbestos. Their concern with asbestos is any area where asbestos usage could affect environmental exposure by air, water or food. Brake linings were mentioned several times in the report as regards air and water exposure. There was no new epidemiological data as concerned asbestos exposure to friction materials workers. There were references to brake lining wear being a source of asbestos in ambient urban air, and it mentioned possible exposures to individuals from asbestos-containing products in automotive supply stores.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 3 2

October 18, 1978

1979 BRAKE BLOCK IDENTIFICATION CATALOG

A contract for printing the "1979 BRAKE BLOCK IDENTIFICATION CATALOG" has been awarded to:

Tweddle Litho Company
24000 Harper Avenue
St. Clair Shores, Michigan 48080

Our first printing of a "Brake Block Identification Catalog" was in 1972. This was sold out at the time and we had to reprint. We published the "1975 Brake Block Identification Catalog" in the Fall of 1975 and again published a reprint. There are no more copies of the 1975 Catalog on hand. The 1979 Catalog will include all blocks in the 1975 Catalog plus the new blocks released since 1975.

It is believed that this Catalog will contain 32 pages plus cover.

As we estimate the total order to be 40,000 copies of a 32 page book, the tentative price is:

$242.00 per M
9.25 per M additional for five hole punching

If there is a change in the price per thousand due to a change in number of pages or to changes in order quantities, or due to Author's alterations, you will be notified.

Please forward all orders to the Institute Office. Do not send them to the Printer. (British Council and FMSI Canada members send to your respective associations). This is our only means of checking the total quantities ordered and the price charged, as well as whether only members are ordering.

All orders for more than 100 copies are to be made out to Tweddle Litho Co. and should state punching and shipping instructions. Orders for 100 copies or less will be handled by the Institute. If you have special instructions such as "no cover," please indicate if you wish "no stitch" and "no trim." If applicable, please advise any special conditions for shipping through your customs.

Please forward your orders so that they reach the Institute Office by November 15, 1978.

EWD/erc

E. W. Drislane
Executive Director

Distribution - Active Members - List D
Regional Members

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

BULLETIN #631

October 17, 1978

TO: ACTIVE MEMBERS

SUBJECT: SAE NATIONAL TRUCK MEETING

I have received the enclosed letter from Mr. A. G. Beier of International Harvester Company concerning the 1978 SAE National Truck Meeting to be held the week of December 11. This meeting will be held at the Hyatt Regency Hotel in Dearborn, Michigan.

Mr. Beier has organized a session as indicated in the attached memo. As this concerns brake wear problems it may well be of interest to the members. I am calling this to the attention of the Membership should there be interest in attending this session.

E. W. Drislane
Executive Director

CC: Active Members (list B)

INTERNATIONAL HARVESTER

October 6, 1978

Mr. Edward W. Drislane, Executive Director
Friction Materials Standards Institute, Inc.
E-210, Route 4
Paramus, New Jersey 07652

Dear Sir:

The 1978 SAE National Truck Meeting will be held the week of December 11, this year in Dearborn, Michigan at the Hyatt Regency Hotel. The writer has organized a half-day session during this week entitled "Analysis and Discussion of Brake Wear Problems on Commercial Vehicles".

This panel presentation and discussion will deal with specific problems and their solution, as well as the general difficulties to improving lining and drum life on medium and heavy duty vehicles. The panelists include representatives from two major OEM lining suppliers, a major OEM brake supplier, and two Midwest truck manufacturers. Because of the wear problems brought about by the Government Brake Regulation (FMVSS-121), I believe this session would be of interest to your members.

I personally feel, to make the Society of Automotive Engineers a more viable organization, we need to get the end user of our products more involved. We need to know your concerns and plan our programs accordingly. I would therefore, appreciate it if you would inform your members of this session, so that those interested could make plans to attend.

This session is planned for 9 A.M., Monday, December 11, 1978. Thanks for your help.

Sincerely,

INTERNATIONAL HARVESTER

A. G. Beier, Chief Engineer
Brake Components Group

AGB:evd

cc: File

TRUCK GROUP ENGINEERING 2911 Meyer Road Fort Wayne, Indiana 46803 Phone 219 461-5128
Address reply to P.O. Box 1109 Fort Wayne, Indiana 46801

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

October 6, 1978

Gentlemen:

We are enclosing a bulletin advising that we will be proceeding with the Historical Sales Reporting for the 9 months ending September 30, 1978. For those new to the program please understand that this is a cumulative report including total sales for the first 9 months of calendar 1978.

During the most recent sales reporting period, our accountants had some difficulties with some of the reports. In one case, a member reported lower sales in one category for 6 months than he had earlier reported at the 3 months reporting date. While such a result is conceivable (returns) it is unlikely. In another case two reports were received from one member with differing results from two different locations.

We ask that one individual be responsible for the sales reporting for each company. Also, we suggest that in submitting data for the 9 months ending September 30, 1978 that the party reporting review and compare the figures submitted for the 6 months ending June 30, 1978. Because of difficulties of the nature described above we have had to delay reports in the past to resolve questions like these. We are anxious to have an accurate set of sales statistics and are asking your help to avoid problems such as these. Your help will be most appreciated.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/lmc
CC: M. Granger & Co., CPA

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 3 0

October 6, 1978

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI® Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first three quarters of 1978 (9 months ending September 30, 1978). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to

Marshall Granger & Company, CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by November 15, 1978. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enc:
Distribution:-Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail To:

MARSHALL GRANGER & CO., CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

9 MONTHS JANUARY 1 to SEPTEMBER 30, 1978

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over _____

Disc Brake Linings _____

Clutch Facings _____

Total Pieces _____

SAMPLE FORM

USE REPORTING FORM TO BE SENT BY ACCOUNTANTS

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

FMSI 17579

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

BULLETIN #629

September 26, 1978

FMS® AND FMSI® ARE REGISTERED TRADEMARKS

On September 5, 1978 the United States Patent and Trademark Office granted trademark registrations of both FMS® and FMSI®.

We are asking that in your catalogs, bulletins, price lists or other listings where either FMS® or FMSI® are used that at its first use in your copy that the trademark registration symbol ® be shown with a footnote stating that "FMS® and FMSI® are registered trademarks of the Friction Materials Standards Institute, Inc." Use of the FMS® and FMSI® trademarks will be restricted to members of the Institute and their customers for marketing products purchased from members. This trademark notice is in addition to the fact that the Institute's numbers, numbering systems and books prepared by the Institute are copyrighted. The need to publish the copyright notice has been in effect since the Institute was formed.

The only new item is our request that the trademark symbol ® be used in the first usage of FMS® or FMSI® in your publications with the note that "FMS® and FMSI® are registered trademarks of the Friction Materials Standards Institute, Inc." Would you kindly see that those in your cataloguing department and others who would use FMS® and FMSI® are aware of these registrations and take the suggested action in their catalogs.

E. W. Drislane
Executive Director

Distribution:
Active Members - Lists A, D
Regional Members
Licensees

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

BULLETIN NO. 628

September 12, 1978

FRICTION MATERIALS WORK PRACTICES GUIDE

The Asbestos Study Committee working with Johns-Manville Corporation will be preparing a "Friction Materials Work Practices Guide." This guide will be a small 5-1/2" x 8-1/2" or 6" x 9" booklet with 12 pages. It is aimed at the brake shops and medium size customers handling brake linings and clutch facings. The message has to do with good work practices and handling friction materials. In particular, it emphasizes that the worker should not use an air hose to blow dust from brakes and he should use the proper dust collection equipment if he is machining brake linings or clutch facings. It also has suggestions on respirator usage. Some of the suggestions in the booklet are in line with those made in a NIOSH Alert and in some cases quote directly from the OSHA standard for controlling asbestos in the workplace.

There are actually only five pages of text along with five illustrations opposite each page. The front cover has an illustration and of course the title. The rear cover indicates sources of additional information for some of the items mentioned in the text. This will be a professional booklet somewhat similar to a booklet which was put out by the Asbestos Cement Pipe Producers Association. It's usage is primarily in the brake shop as I indicated earlier. We would expect publication in October 1978 and are currently waiting formal pricing from printers.

However, in order to get an estimate of the quantities which will govern the price, we are asking that those members interested in purchasing such a booklet for distribution to their customers and others indicate the quantities required. We are not asking for orders at this time and we will not solicit orders until we have an estimate of the total quantity that will be ordered. We would expect the price of this booklet to run about 10¢ a copy. It is not likely that the price will go much under 10¢, and I have sufficient data to indicate that it will not go above 15¢.

To get a handle on the demand for this booklet without committing yourself to a specific purchase order, would you kindly fill out the enclosed ballot and return it to the Institute in the prepaid envelope enclosed. As decisions for making this purchase may be with those involved with occupational or environmental problems I have taken the liberty of sending the ballot and the return envelope to the party whose address appears below.

I would hope to have a formal solicitation of orders with a better estimate on prices shortly. Your help in returning this ballot quickly will speed up publication of this booklet.

Distribution:
Active Member - List C

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

MEMBERS' BALLOT

FRICTION MATERIALS WORK PRACTICES GUIDE

Friction Materials Standards Institute, Inc.
E-210 Route #4
Paramus, New Jersey 07652

Gentlemen:

In response to BULLETIN NO. 628, we would expect to order

_____ of the Institute's "Friction Materials
(number of copies)

Work Practices Guide," with understanding that the price

will be about 10¢ a copy (not over 15¢ a copy).

By_____

Company_____

Date_____

FMSI 17583

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 2 7

August 17, 1978

Borg & Beck de Mexico, S.A.

Regional Member

This is to advise the Membership that Borg & Beck de Mexico, S.A. has been voted into Regional Membership in the Friction Materials Standards Institute. Mail ballots were sent to the Membership on July 24, 1978. Of the 18 Active Members ballots were received from 16 Members. Fifteen Members voted to accept the application for Regional Membership filed by Borg & Beck de Mexico, S.A. and one Member voted not to accept that application. Two Members did not vote.

While the ballots had been received prior to this date it was necessary to wait 21 days from the date of mailing the ballot in accordance with our Constitution and By-Laws to make the acceptance final. The Regional Membership for Borg & Beck de Mexico, S.A. will be effective with the quarter starting October 1, 1978.

The foregoing is for your information.

EWD/erc

E. W. Drislane
Executive Director

Distribution - List A

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 626

July 18, 1978

APPLICATION FOR REGIONAL MEMBERSHIP

FROM

BORG & BECK de MEXICO, S.A.

This is to advise the Membership that an application has been received for Regional Membership in the Institute from Borg & Beck de Mexico, S.A. I have had conversations and phone calls with Borg & Beck de Mexico concerning the use of copyrighted pages from the FMSI catalogs for their cataloging purposes. After these discussions and correspondence, Borg & Beck de Mexico, S.A. applied for Regional Membership in the Institute.

This was briefly discussed during the Annual Membership Meeting and at the Board of Directors Meeting in Scottsdale in June of this year. They had indicated that they would apply for Membership. Borg & Beck de Mexico advises that they would be marketing clutch facings internationally, but not in the United States. They would qualify for Regional Membership (on a regular fee basis) in the Institute. Their application was received with the necessary Annual Fee payment. This application is now being reviewed by the Board of Directors, and we are advising the Membership of this application at this time.

EWD/erc
CC-Active Members - List A

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 625

July 7, 1978

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first half of 1978 (6 months ending June 30, 1978). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to

Marshall Granger & Company, CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by August 15, 1978. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enc:
Distribution - Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

6 MONTHS JANUARY 1 to JUNE 30, 1978

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over _____

Disc Brake Linings _____

Clutch facings _____

SAMPLE FORM

USE REPORTING FORM TO BE SENT BY ACCOUNTANTS

Total Pieces _____

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

FMSI 17587

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
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Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

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When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 2 4

May 23, 1978

BRAKE BLOCK IDENTIFICATION CATALOG

In 1972 and 1975 the Institute published Brake Block Identification Catalogs. These were black covered books of about 32 pages with illustrations of the various 4,000 series blocks. The 1975 edition covered only 4,000 series blocks with nominal 3/4" or over thickness. In the earlier 1972 catalog 4,000 series segments with 3/8" and 1/2" thicknesses were included.

Since publication of the "1975 Brake Block Identification Catalog" we had sufficient demand to reprint that book and eventually sold all 15,000 copies of the reprint. The last copies of this reprint were sold earlier this year. We have no more copies of the "1975 Brake Block Identification Catalog" on hand.

Until recently there had only been a few blocks released since the 1975 catalog and it was not felt that there was sufficient reason to prepare and publish a new catalog. However, we have now released a total of 13 new brake blocks since the 1975 catalog. Some Members are interested in an up-dated catalog, and we are now checking for the Members' interest in preparation of a new catalog. We can publish a new edition if we can plan on at least 20,000 copies, because of the costs of the catalog. If we can plan on 20,000 or more copies, we can have a price which in the past has been reasonable to the Members. The 1975 catalog cost slightly less that 20¢ per catalog. While this bulletin is being sent to several individuals at each Active Member and Regional Member, I am suggesting that the reply come from the person that I have indicated for each company. Normally that person would be the one responsible for catalogs. The individual from whom I am asking a reply from your company is:

Would that Member kindly complete the enclosed questionnaire and return it to the Institute so that we can gauge the interest in a new Brake Block Identification Catalog. If such a catalog were to be published it is likely that it would be in the late fall of 1978 or early 1979. It would probably be entitled the "1979 Brake Block Identification Catalog." Your reply on this will assist in gauging the interest for such a catalog.

E. W. Drislane
Executive Director

Friction Materials Standards Institute, Inc.
E-210 Route #4
Paramus, New Jersey 07652

BRAKE BLOCK IDENTIFICATION CATALOG

In reply to the Institute's questionnaire concerning the possible publication of a new "Brake Block Identification Catalog:"

1. If a new catalog were published, our company would purchase approximately _____ copies.

2. As regards publication of a new Brake Block Identification Catalog (One choice only.):

   2.1 Publish new Catalog (____)

   2.2 Do not publish new Catalog (____)

   2.3 Reprint old (1975) Catalog (____)

   2.4 No opinion (____)

   2.5 Other _____ (____)

   _____

   _____

By _____

Company _____

Date _____

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 623

April 5, 1978

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first quarter of 1978 (3 months ending March 31, 1978). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to

Marshall Granger & Company, CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by May 15, 1978. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enc:
Distribution - Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., CPA
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

3 MONTHS JANUARY 1 to MARCH 31, 1978

Brake linings less than 3/4" nominal thickness (See explanation for roll lining).	
Brake blocks, nominal thickness of 3/4" and over	
Disc Brake Linings	
Clutch facings	
Total Pieces	

SAMPLE FORM

USE REPRODUCED FORM TO BE SENT BY ACCOUNTANTS

STATISTICS SUPPLIED BY:

Signature

Company

Telephone Number

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 2 2

April 4, 1978

POSSIBLE REPRINT OF 1977 AUTOMOTIVE DATA BOOK

One member has asked for a reprint of the "1977 Automotive Data Book." We have been out of stock on this catalog for some time.

If you want additional copies of the "1977 Automotive Data Book," please phone me with your order no later than April 10, 1978.

When originally printed, the 1977 Automotive Data Book cost $385.90/M, with punching. We would expect this reprint to cost about $600.00/M, depending on the number of copies printed. If we were to achieve any economies with unexpected additional orders, they would be passed on to the members.

EWD/erc

E. W. Drislane

Active Members-List D

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 2 1

March 1, 1978

DECLARATION RE PRODUCT CATEGORIES

FOR

FEE FORMULA BASIS

According to our Constitution and By-Laws, the Fee Formula for Active Members must be reviewed annually. Data on categories is accumulated and reported to a Fee Formula Committee and to the Board of Directors who then make recommendations on the fee schedule to the membership.

As a member may be engaged in a category one year and not the following (or the reverse) declarations must be filed annually in order to arrive at a proper fee formula and category assessment.

At the June 1975 meeting, the Board of Directors resolved that category filing information will no longer be confidential. This change was reviewed by Counsel and put into effect for fiscal 1976-77. All categories in which your firm is engaged must be reported. Category filing information will be assembled and reported in summary form to the Membership.

Would you kindly complete and return one copy of the attached form to the Institute Office. We will prepare a summary to assist the Fee Formula Committee and the Board of Directors in establishing the fee formula for the fiscal year starting July 1, 1978.

Filing categories are unchanged from those of recent years. Refer to the "Explanation of Category Filing" attached to the form. If you have questions, please give me a call.

Kindly return your declaration by March 15, 1978. A stamped return envelope is enclosed with the Delegate's copy.

EWD/erc
Encs.

E. W. Drislane
Executive Director

Active Members - List F

FMSI 17595

EXPLANATION OF CATEGORY FILING

General - A member must be engaged in at least one of the first three categories, in order to be a member. The number of categories checked is used to determine the fees paid during the next fiscal year. Any member not filing this information correctly will be assessed the full fee for all categories.

Confidentiality - The fee category information is no longer confidential. The data will be reviewed by the Board of Directors to determine its reasonableness. Summary results will be distributed to the Membership.

"Our Company is Engaged as follows:" - If a member manufactures and sells, purchases and sells, or both purchases and manufactures, and sells the product indicated in the replacement market, he is "engaged" in that category. In other words, if he sells that product he is engaged in that category. Further, the replacement market includes automotive, industrial, and off road equipment--where Friction Materials Standards Institute, Inc. performs a service, either through cataloguing, assignment of copyrighted FMSI numbers, or the maintaining of prints. If a member sells a certain product type, but only to market where FMSI does not provide services, he does not report that category. Where a member sells a certain product only to a market where there are FMSI services available, but he declines to use these services, he must report that category.

Brake Lining - Under 3/4" Nominal, Including Disc Brake Linings - This includes linings whether loose, attached to shoes, or in roll form, sold to market where the FMSI numbering system is available.

Brake Blocks and Disc Brake Linings - 3/4" Nominal and Over - This includes brake blocks, whether loose or attached to shoes, sold to markets where the FMSI numbering system is available. The 3/4" nominal includes tapered blocks with a maximum thickness of approximately .700", with minimum thickness below .500". This also includes disc brake linings 3/4" and over, measuring lining thickness only at its thickest point. When measuring a lined shoe, to determine lining thickness, measure from the top of the shoe.

Clutch Facings - This includes loose facings or facings attached to plates, sold to markets where the FMSI numbering system is available.

Brake Shoes - New Unlined, Including New Unlined Disc Brake Shoes - This category includes new and unlined shoes (whether drum or disc type) which are sold as new and unlined shoes in the replacement market. If all the new and unlined shoes are sold as lined shoe assemblies, do not report this category.

Friction Materials Standards Institute, Inc.
E-210 Route 4
Paramus, New Jersey 07652

Gentlemen:

In response to Bulletin #621 of March 1, 1978 concerning the declaration of information to be used in determining the fees, our company is engaged as follows:

Category	We sell to the domestic replacement market:
Brake Lining - Under 3/4" Nominal, Including Disc Brake Linings	( )
Brake Blocks - 3/4" Nominal or over	( )
Clutch Facings	( )
Brake Shoes - New Unlined, Including New Unlined Disc Brake Shoes	( )

Affix an "X" in the square to the right of the category or categories your company is engaged in.

Signature _____

Company _____

Date _____

Kindly return declaration to the Institute Office by March 15, 1978.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 2 0

February 21, 1978

ORDERS FOR THE 1978 BRAKE SHOE IDENTIFICATION CATALOG

The contract for the printing of the "1978 Brake Shoe Identification Catalog" has been awarded to:

Success, Inc.
1345 West 16th Street
Indianapolis, Indiana 46202

It is believed that it will contain 72 pages plus cover.

On an estimate of the total order being 40,000 copies of a 72 page book, the preliminary price is:

$395.00 per M
$ 11.40 per M additional for five hole punching

If there is a change in the price per thousand due to a change in number of pages or to changes in order quantities, or for author's alterations, you will be notified.

Please forward all orders to the Institute Office. Do not send them to the printer. (British Council and FMSI Canada members send to your respective associations). This is our only means of checking the total quantities ordered and the price charged, as well as whether only members are ordering.

All orders for 100 or more copies are to be made out to Success, Inc., and should state punching and shipping instructions. Orders for less than 100 copies will be handled by the Institute. If you have special instructions such as "no cover," please indicate if you wish "no stitch" and "no trim." If applicable, please advise any special conditions for shipping through your customs.

Please forward your orders so that they reach the Institute Office by March 15, 1978.

EWD/erc

E. W. Drislane
Executive Director

Distribution - Active Members - List D
Regional Members
Licensees

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 1 9

February 15, 1978

1978 SUPPLEMENT TO THE 1977 AUTOMOTIVE DATA BOOK

The contract for the printing of the "1978 Supplement to the 1977 Automotive Data Book" has been awarded to:

Success, Inc.
1345 West 16th Street
Indianapolis, Indiana 46202

Please note that this is the Supplement, and it is believed that it will contain 32 pages with selfcover.

On an estimate of the total order being 60,000 copies of a 32 page book, the price is:

$123.00 per M
$ 4.80 per M additional for five hole punching

If there is a change in the price per thousand due to a change in number of pages or to change in order quantities, or for author's alterations, you will be notified.

Please forward all orders to the Institute Office. Do Not send them to the printer. (British Council and FMSI Canada members send to your respective associations). This is our only means of checking the total quantities ordered and the price charged, as well as whether only members are ordering.

Orders for 100 or more copies should be made out to Success, Inc. and state punching and shipping instructions. Orders for less then 100 copies should be made out to the Institute. If applicable, please advise any special instructions necessary to ship through your customs.

Kindly forward your orders so that they reach the Institute Office by March 15, 1978.

EWD/erc
Distribution- Active Members- (List D)
Regional Members

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 1 8

February 13, 1978

ASBESTOS STUDY COMMITTEE MEETING

There were several items discussed at a recent Asbestos Study Committee meeting which may be of interest to the membership.

Work Practices Booklet for Users of Friction Materials

After considerable discussion, the Committee recommended that the Institute publish a work practices booklet for replacement market users of friction materials. This would be aimed at the brake repair shops, with emphasis on work practices to reduce asbestos dust exposure in the shop, and to recommend procedures to assist users in meeting OSHA requirements. A Task Force set up by the Committee is now working on a draft.

The Board of Directors has approved this project and we will advise you on its progress.

A Brief Message--Asbestos Dust Control in the Shop

At the meeting, it was indicated that other manufacturers might be interested in the condensed set of instructions that Raybestos-Manhattan inserts in boxes containing friction materials. The message contains "three do's and three don'ts:"

Do not breathe dust.
Do not use air hose for cleaning.
Do not machine without dust collection equipment.
Do use vacuum or wet cleaning methods.
Do dispose of dust in sealed container.
Do wear mask if unable to avoid dust.

Johns-Manville Program--"Working with Asbestos"

Representatives of Johns-Manville attended this committee meeting. They have prepared a cassette/slide program entitled "Working with Asbestos." This program takes about 30 minutes and discusses asbestos-related health risks, government regulations, monitoring programs, medical surveillance and emission control efforts. The program is oriented to the worker in the asbestos products manufacturing factory. It is used by some as an indoctrination for new employees. It is well suited to employees in friction materials manufacturing plants.

One member prepared additional slides of operations in its shop showing dust control features on various presses and cutting equipment. A Plant Safety Supervisor narrated this section and named the operators and decribed the operations. The full program is used for indoctrination of new employees.

It was suggested that this J-M program--perhaps coupled with additional slides and cassettes of ones own operations--could be a worthwhile program for new

employee indoctrination. If interested, one should contact:

Environmental Affairs Department
Johns-Manville Corporation
Greenwood Plaza
Denver, CO 80217

Consumer Product Safety Commission--Recall Procedures

This past summer, Mr. Adrian Comins of Auto Friction contacted me concerning procedures used by CPSC in its Tris recall, and how it--if applied in the future to asbestos-bearing friction materials--could cause financial burdens to friction material manufacturers. Mr. Comins' comments were passed on to your Officers and Board of Directors and were discussed at the recent committee meeting.

Mr. Comins feels the "Repurchase of banned hazardous substances" section in the "Federal Hazardous Substances Act" is unfair in putting the burden almost entirely on the manufacturer.

Mr. Comins wrote CPSC, citing the Tris recall, asking for a change to spread the costs on a recall over others in the distribution chain. He wrote under his personal letterhead, not mentioning friction materials. He feels that if CPSC considers a ban on asbestos-bearing friction materials, that distributors and stores may stock up and then return all materials for full refund plus transportation charges and expenses. He believes that repurchase costs should only be born by manufacturers for goods sold before announcement of proposed action by CPSC.

He has recommended that others write CPSC, expressing their concern on repurchase procedures of the Federal Hazardous Substances Act. We suggest that any comments be made as an individual, and friction materials not be mentioned.

E. W. Drislane
Executive Director

Distribution: Active Members (List C)
Regional (Canada)
Regional (U.S. Dues)

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 1 7 A

March 7, 1978

LABORATORIES--ASBESTOS FIBER COUNTS AND CONSULTING

On February 13, 1978, we circulated BULLETIN NO. 617, with a list of laboratories which provided services as regards asbestos monitoring. In this list, we showed 25 laboratories which will run asbestos fiber counts. Also, some laboratories offered professional consulting services.

An error has been called to our attention. The Bendix cost per fiber count was incorrect (too high). We have also made some small corrections. Would you please discard your earlier list and use this in its place.

The listing is in summary form. If you wish to use the service of such a lab, you should contact the party indicated for more information. There may be set-up charges or minimum charges. All consulting fees are subject to additional charges for consultant's or technician's expenses.

The Institute is not endorsing or recommending the listed laboratories. They are simply listed for your information.

EWD/erc
Enc:
cc-Active Members (List C)
Regional (Canada)
Regional (U.S.Dues)

E. W. Drislane
Executive Director

Laboratory	Telephone	Contact	Cost/Sample Fiber Count	Consulation (Expenses additional)
The Almega Corporation 607 C Country Club Drive Bensenville, Illinois 60106	(312) 595-0175	Eric Aynsley	$25	Professional-Technical: $200-320/day
Environmental Health Laboratory American Can Company U. S. Highway 22 Union, New Jersey 07083	(201) 686-4500 ext. 342	James F. McVeigh	$25	Industrial Hygienist: $300/day
American Mutual Insurance Companies Wakefield, Mass. 01880	(617) 245-6000 ext. 339	Leon D. Horowitz	$20	Professional: $250/day
The Bendix Corporation Bendix Launch Support Division 1355 N. Atlantic Avenue Cocoa Beach, Florida 32931	(305) 783-5610	John Nevins	$14.50 (3 samples min)	
Clayton Environmental Assoc. 25711 Southfield Road Southfield, Michigan 48075	(313) 424-8860	Richard J. Powals	$17.50 (3 samples min)	Professional: $200-400/day
Continental Insurance Companies Environmental Health Laboratory 1810 Commerce Street Dallas, Texas 75201	(214) 748-7351 ext. 525	Virgil Doty	$15	Consultation Fee: $27/hour
Eco Science Laboratory 490 Main Street Norwich, Connecticut 06360	(203) 889-8104	Richard J. Benoit	$18 (discount schedule for multiple samples)	Professional: $26.50/hour Technical: $9.70-$13.20/hour
Employees Insurance of Wausau Environmental Health Lab 2000 Westwood Drive Wausau, Wisconsin 54401	(715) 842-6109 or (715) 842-6810	John L. Sadenwasser	$16	
Environmental Health Laboratory P. O. Box 6195 1021 Georgia Avenue Macon, Georgia 31208	(912) 745-4702	Alice C. Farrar	$30	

Laboratory	Telephone	Contact	Cost/Sample Fiber Count	Consultation (Expenses additional)
Falcon Customer Services, Inc. 3333 California Street (Laboratory) San Francisco, California 94119	(415) 929-2706	Edward W. Ebersole	$18 (1-10) $17.10(11-20) $16.20(21-30) $15.30(31-100)	Professional: $35/hour
Hager Laboratories, Inc. 12000 East 47th Avenue Denver, Colorado 80239	(303) 371-1441	Robert N. Hager,Jr.	$30 (1); $25 (2-5); $20 (6 & over)	Field Work: $30/hour or $200/day
Hanford Environmental Health Foundation Div. of Northwest Health Services 805 Goethals Drive Richland, Washington 99352	(509) 943-0802	Bruce D. Reinert D. G. Quilici	$20	Certified Industrial Hygienist: $45/hour Non-certified Hygienist: $35/hour
Industrial Health Foundation 5231 Centre Avenue Pittsburgh, Pa. 15232	(412) 681-6593	Marianne Kaschak	Members $24(1); $19(2-5);$16 (6 or more Non-members $30(1); $25 (2-5); $19 (6 or more)	
Kettering Laboratory University of Cincinnati Medical Center 3223 Eden Avenue Cincinnati, Ohio 45267	(513) 872-5739	David W. Yeager	$15	Industrial Hygienist: $300/day
LFE Corporation Environmental Analysis Laboratories 2030 Wright Avenue Richmond, California 94804	(415) 235-2633 Ext. 52	Marcel W. Nathans Robert J. Reinhart	$20(1-5) $17(6-10 $15(10 or more)	Professional: $45/hour Technical: $27/hour
National Loss Control Service Corp. Route 22 Long Grove, Illinois 60049	(312) 540-2022 (312) 540-2488	George J. Krafcisin Joan A. Wronski	$20(1-24) $18(25 or more)	Professional: $400/day

FMSI 17604

Laboratory	Telephone	Contact	Cost/Sample Fiber Count	Consultation (Expenses additional)
Olin Corporation Environmental Hygiene & Toxicology Dept. 91 Shelton Avenue New Haven, Connecticut 06511	(203) 789-5441	Leonard A. Krause	$30	
Particle Data Laboratories 115 Hahn Street Elmhurst, Illinois 60126	(312) 832-5658	Richard Karuhn	$30	Professional: $35/hour Technical: $20/hour
Poisonlab Division of Chemed Corporation 1469 South Holly Street Denver, Colorado 80222	(303) 758-0430	Marilyn K. Leczinski	$15(6-25) $13(26-50)	Professional: $25 to $125/hour Technical: $200/day
Radiation Detection Company 162 N. Wolfe Road Sunnyvale, California 94088	(408) 735-8700	Joe Lipera Jim Mecozzi	$22.50(1) $18(2-3) $15(4-99) $10(100 plus)	Professional: $40/hour
Rossnagel & Associates, Inc. 1999 Route 70 Cherry Hill, New Jersey 08003	(609) 424-4440	W. B. Rossnagel	$25	Professional: $300/day Technical: $150-$200/day
St. Paul Fire & Marine Insurance Co. Environmental Services Analytical Lab 385 Washington Street St. Paul, Minn. 55102	(612) 221-7043	Kenneth P. Bergstrom	$25 (1-4) $22.50(5-19) $20(20 or more)	Professional: $60/hour Technical: $45/hour
Suntech, Inc. Industrial Hygiene Laboratory P. O. Box 1135 Marcus Hook, PA 19061	(215) 485-7400 ext. 5235	T. J. Mayer or D. L. Camin	$25	
Swanson Environmental, Inc. 24680 Swanson Road Southfield, Michigan 48034	(313) 352-0960	J. R. Swanson	$25 (1-4) $20 (5-9) $15(10 or over)	Professional: $250/day Technical: $150/day

FMSI 17605

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 1 7

February 13, 1978

LABORATORIES--ASBESTOS FIBER COUNTS AND CONSULTING

In November 1976 we circulated a listing of domestic laboratories which provide services as regards asbestos monitoring. The 1976 list showed 16 laboratories which would run OSHA fiber counts in their labs from samples sent in by clients. We have now contacted laboratories from a larger list to up-date that list. While a majority of those contacted replied, some who were on our earlier list did not. Several new labs replied. We eliminated some labs which specifically limited their services to policy-holders or to narrow geographic areas. And we eliminated a few replies where the prices quoted were so out of line as to be meaningless.

We have listed 25 laboratories that will run the fiber counts in their labs from samples sent in by clients. Some will provide technical services in taking the samples by the membrane filter method. Others will provide consulting services.

The listing is in summary form. If you wish to use the service of such a lab, you should contact the party indicated for more information. There may be set-up charges or minimum charges. All consulting fees are subject to additional charges for consultant's or technician's expenses.

The Institute is not endorsing or recommending the listed laboratories. They are simply listed for your information.

EWD/erc
Enc:
cc-Active Members (List C)
Regional (Canada)
Regional (U.S.Dues)

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J.07652

B U L L E T I N

N O. 6 1 6

January 6, 1978

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the full calendar year 1977 (12 months ending December 31, 1977). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received, and the names of members reporting in each of the four groups.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8-14" dia., (3/16 to 1/2" thick) asbestos composition discs.

While there is no change in your reporting to the Accountants, there will be a change in the form of the report to be rendered by the Accountants. Based on resolutions at the June 1976 membership meeting, for the annual report only, the Accountants will be asked to list the names of the members reporting in each product line. (On the quarterly reports, they have been listing only the members reporting without indicating who reported by product line).

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to:

Marshall Granger & Company, C.P.A.
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by February 15, 1978. If you do not wish to report these figures, no reply is necessay. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Encs:
Distribution: Active Members-List G
Regional Members (paying Active Members Dues)

E. W. Drislane
Executive Director

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., C.P.A.
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

12 MONTHS JANUARY 1 to DECEMBER 31, 1977

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over _____

Disc Brake Linings _____

Clutch Facings _____

Total Pieces _____

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 615

December 30, 1977

VEHICLE EQUIPMENT SAFETY COMMISSION--"MINIMUM REQUIREMENTS FOR BRAKE COMPONENT WEAR WARNING"

The Vehicle Equipment Safety Commission (VESC) has amended their regulation VESC-14 "Minimum Requirements for Brake Component Wear Warning." In the VESC transmittal letter of December 19, 1977, Mr. Dairl Bragg, Executive Director of the VESC stated:

> VESC-14 "Minimum Requirements for Brake Component Wear Warning" was revised this past year as a result of petitions from industry asking the VESC to take another look at the available data on Drum and Rotor wear as it relates to monitoring that wear. The committee concluded from their study and material gathered through a public hearing that the monitoring of Brake drum and Rotor wear probably would not be cost effective and the monitoring of the wear of those components would not greatly enhance the safety of the system in terms of their life expectancy. We do feel quite strongly about the merits and the cost benefits of the regulation as revised. We are confident that there would be a significant enhancement to vehicle safety in requiring a system that would monitor the wear of brake pads and linings and alert the operator when a worn out condition occurred so maintenance could then be performed before further degradation or a total failure of the brake system took place.

Among other things, the amended VESC-14:

(1) Narrowed scope to vehicles with a GVW of 10,000 pounds or less,
(2) Narrowed requirement for device to the friction materials (eliminated drum and rotor device requirement), and
(3) Eliminated the effective date.

The foregoing is for your information.

EWD/erc
cc-Active Members (List B)
Regional Members (U.S.Dues)
Licensees

E. W. Drislane
Executive Director

VEHICLE EQUIPMENT SAFETY COMMISSION

Regulation VESC-14

MINIMUM REQUIREMENTS
FOR
BRAKE COMPONENT WEAR WARNING

Approved July 1975
Amended July 1977

MEMBERS — BRAKE COMPONENT WEAR WARNING COMMITTEE

Alfred Massarone
Chief Field Investigator
Registry of Motor Vehicles
Rhode Island

E. Theodore Gunaris
Chief Deputy Registrar
Registry of Motor Vehicles
Massachusetts

Noel K. Dawson
Chief
Vehicle Control Division
Department of Motor Vehicles
District of Columbia

Maj. Joe H. Patterson
Department of Safety
Tennessee

Madison Post
Commissioner
Department of Transportation
Illinois

Suite 908
1030 15th Street, N.W.
Washington, D.C. 20005

FMSI 17611

MEMBERS — EXECUTIVE COMMITTEE
(Public Hearing and Approval Board)

CHAIRMAN

George Stevens
Driver & Vehicle Administration
Michigan Department of State
Michigan

Immediate Past Chairman

Ejner J. Johnson
Administrator
Motor Vehicle Administration
Maryland

Vice Chairman

Dennis G. Eisnach
Superintendent
Division of Highway Patrol
Department of Public Safety
South Dakota

Secretary-Treasurer

Dr. Basil Y. Scott
Deputy Commissioner
Department of Motor Vehicles
New York

Region I

Eugene G. Petit, Jr.
Registrar
Registry of Motor Vehicles
Rhode Island

Region II

Roy M. Terry
Safety Officer
Department of State Police
Virginia

Region III

James O. Peterson
Administrator
Division of Motor Vehicles
Wisconsin

Region IV

Philip Thorneycroft
Assistant Director
Department of Transportation
Arizona

Dairl Bragg
Executive Director
Washington, D.C.

FMSI 17612

BRAKE COMPONENT WEAR WARNING REGULATION

1. PURPOSE:

1.1 The purpose of this regulation is to require vehicles manufactured for sale on or after the effective date of this regulation, be equipped with a direct and effective means of determining when the discard point of the service brake friction materials have been reached without requiring the removal of major components, such as wheels, hubs, drums or any structural members of the vehicle, and to require each brake drum or rotor be marked to show the discard point.

1.2 The service braking system shall be constructed so that a visible, audible, or tactile signal as herein defined will be given when any service brake friction material has been worn to its discard point.

2. SCOPE:

2.1 The scope of this regulation shall include the service brake friction materials, drums and rotors on all passenger cars, multipurpose passenger vehicles, trucks and buses, designed for highway use, with a gross vehicle weight rating of 10,000 pounds or less.

3. DEFINITIONS:

3.1 "Visible signal" means a warning light located in direct view of the seated driver.

3.2 "Audible signal" means a distinctive sound audible to the seated driver under normal vehicle and atmospheric conditions.

3.3 "Tactile signal" means a distinctive pulsating action that can be sensed upon application of the service brake.

3.4 "Discard point" means that dimension which the vehicle manufacturer has established as being the limit of wear beyond which the drum, rotor or friction material is no longer recommended for highway use.

3.5 "Friction material" means that part of a service brake designed to retard or stop the rotation of a wheel through friction by the forcing of this material against a brake drum or rotor made of more durable material.

4. REPLACEMENT COMPONENT:

4.1 Every replacement brake component for a wear warning system or assembly shall allow the system to retain the same type of warning as in the original system design.

5. MARKING OF DRUMS AND ROTORS:

5.1 Each manufacturer of original or replacement drums or rotors shall plainly and permanently identify on the drum or rotor the words "Discard Point" and that dimension predetermined by the manufacturer to be the discard point as defined in section 3.4, in English letters and Arabic numerals not less than 1/4 inch in height.

6. EFFECTIVE DATE:

6.1 This regulation shall be effective on _____.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 1 4

December 16, 1977

LESTER D. STICKLES, FORMER FMSI LEGAL COUNSEL

Mr. Lester D. Stickles, who had served as Legal Counsel for the Institute from its organization in 1948 until his retirement in 1975, died of the complications of a heart ailment on Thursday December 15, 1977.

The family has asked that flowers not be sent. For those who wish to express their sympathy a donation to a favorite charity, in Mr. Stickles memory, would be welcome. The Heart Fund was mentioned.

There will be no viewing hours. Mr. Stickles' funeral will be Monday December 19, 1977 with burial at Mt. Hope Cemetery, Saw Mill River Parkway, Westchester. Mrs. L. D. (Dorothy) Stickles, the widow, resides at:

19 Temple Road
Setauket, New York 11733

EWD/erc

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 1 3

October 31, 1977

California Department of Heallth--Reporting of Asbestos Use by Brake Repair Facilities

The California Department of Health issued an open letter to Motor Vehicle and brake repair facilities in August 1977 concerning their reporting on the use of asbestos. The notice headlined such items as reporting use of asbestos, penalties, the procedure for reporting, the regulation with items on inspection and disposal of waste.

As this open letter was addressed to motor vehicle and brake repair facilities it is intended specifically for those who do any work on brake linings and clutch facings, and this includes procedures such as blowing out brake dust, grinding, sanding, drilling or chamfering of brake linings or clutch facings. A copy of this letter is sent to you so that you may alert your customers in the California market if they have not already been advised.

E. W. Drislane
Executive Director

CC: Active Members (list C)
Regional Members with U.S. Copyright

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY
DEPARTMENT OF HEALTH
744 P STREET
ACRAMENTO, CALIFORNIA 95814
(415)843-7900 Ext. 306

EDMUND G. BROWN JR., Governor

August 1977

AN OPEN LETTER TO MOTOR VEHICLE AND BRAKE REPAIR FACILITIES

SUBJECT: Reporting Asbestos Use

This letter is intended to make you aware that California employers who use or work with asbestos face new legal responsibilities for worker protection as part of an expanded State program to prevent job related cancer. As you know, brake linings and other friction materials used in your industry contain asbestos, which in fiber form is a known cause of human cancer.

The State's new Occupational Carcinogens Control Act seeks to prevent exposure of employees, employers and others to asbestos and 15 other State-regulated cancer-causing substances in the work place. The first new obligation for employers is to report the use of these materials.

REPORTING ASBESTOS USE

Automotive repair facilities that are registered with the State Bureau of Automotive Repair (BAR) do not have to report the use of asbestos because they are obliged to register annually with the bureau. But they are not otherwise exempt from State regulations requiring that employees be protected from unsafe exposure to asbestos dust.

Brake and clutch repair facilities which are not registered with the BAR must report to the chief of the Division of Industrial Safety (DIS) as asbestos users if work practices are used which can create dust. These work practices include: blowing out brake dust with compressed air, or the grinding, sanding, drilling, arcing or beveling of brake shoes or clutch facings. If these dusty work practices are not used, reporting is not required.

PENALTIES

Reporting must be done by September 1, 1977. After that date there is a $500 fine for failing to report to the chief of DIS. Effective July 1, 1977, there are $1,000 fines for serious safety violations of Cal/OSHA regulations involving asbestos and a $5,000 fine for repeat infractions.

REPORTING PROCESS

Repair shops, garages, automobile dealers, and other facilities registered with the State Bureau of Automotive Repair are automatically registered with the chief of DIS and need not follow the reporting process described below. These facilities are also exempt from the $500 fine for failure to report to the chief of DIS.

FMSI 17617

labeling are exempt from reporting requirements providing such products are handled or stored in sealed or

INSPECTIONS

This new Act requires the State Department of Health to inspect work places where cancer-causing substances are used. Primary responsibility for enforcing these safety and health standards, as with all other job safety and health standards, rests with the State Division of Industrial Safety in the State Department of Industrial Relations.

It is important to note that even though facilities registered with the Bureau of Automotive Repair are exempt from reporting requirements, they are not exempt from Cal/OSHA safety inspections to ensure compliance with regulations on asbestos.

FOR REGULATIONS AND MORE INFORMATION

Free copies of regulations on asbestos and information on how to protect workers may be obtained by contacting one of the State Health Department offices listed below:

In Northern California

State of California
Occupational Health Branch
Occupational Cancer Control Unit
2151 Berkeley Way
Berkeley, CA 94704

(415) 843-7900, Ext. 306

In Southern California

State of California
Occupational Health Branch
Occupational Cancer Control Unit
1449 West Temple Street
Los Angeles, CA 90026

(213) 620-4290

EMPLOYEE COMPLAINTS

The law requires the State Department of Health and the Division of Industrial Safety to respond to complaints from employees regarding potentially unlawful use of the regulated cancer-causing substances in their work places. Priority is given to investigation of such complaints.

NO-CHARGE CONSULTATION

To help employers achieve compliance with the provisions of the Occupational Carcinogens Control Act, the State Department of Health will provide penalty-free, no-charge consultative services and educational programs. These services will be provided on request by any employer or employee.

RECOMMENDED WORK PRACTICES

To keep asbestos exposures as low as possible, it is recommended that removal of dust from brake drums and brake assemblies be done with a wet rag or vacuuming instead of by means of compressed air. All arcing or grinding of brake linings should be performed with an adequate local exhaust dust collection system. The asbestos dust collected should be disposed of in sealed impermeable bags or containers.

FMSI 17619

DISPOSAL

The Department of Health, Vector and Waste Management Section, has designated asbestos-containing waste as hazardous wastes. Waste consisting of spent brake linings, dust, cuttings, or other materials which contain asbestos, should be packaged and in sealed, nonreturnable containers (e.g. double plastic bags) from which asbestos fibers cannot escape. The contents should be wetted to prevent the production of airborne asbestos fibers in case the container is broken. These containers may be placed in your regular solid waste bin for transportation to the disposal site.

For additional information on the requirements for disposal of asbestos-containing wastes, contact the Vector and Waste Management Section Office nearest you.

Headquarters Office	Berkeley Office	Los Angeles Office
744 P Street Sacramento, CA 95814	2151 Berkeley Way Berkeley, CA 94704	Post Office Box 30327 1449 W. Temple Street Los Angeles, CA 90026
(916) 322-2337	(415) 843-7900, Ext. 434	(213) 620-2380

The General Industry Safety Orders (Section 5208 (i)(2)) require this caution label to be attached to containers of asbestos waste:

CAUTION
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

The State Department of Health and the State Department of Industrial Relations provide this information to employers now to alert them to their major legal responsibilities under the Occupational Carcinogens Control Act and to give maximum lead time to planning to achieve health and safety standards mandated by the law. Both Departments will work cooperatively with employers in the interests of improved worker safety and health.

Sincerely,

Jerome A. Lackner, M.D.
Director of Health

Donald Vial
Director of Industrial Relations and
Designated Administrator for Cal/OSHA

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 1 2

October 12, 1977

OSHA PROPOSED RULEMAKING FOR SUBSTANCES POSING AN OCCUPATIONAL CARCINOGENIC RISK

On Tuesday October 4, 1977, OSHA published a notice of proposed rulemaking on suspected carcinogenic substances in the Federal Register. In this proposed rulemaking, substances would be classified:

Category I	Toxic substance confirmed as carcinogenic in humans
Category II	Toxic substance indicated as a potential carcinogen
Category III	Any toxic substance not classified in Category I or II
Category IV	Toxic substance not found in the American workplace.

The proposed regulations then draw up standards for the Categories for control through establishing permissible exposure limits, monitoring, regulated areas, respirators, medical surveillance, etc. Asbestos would be a Type I carcinogen and would require that workers' exposure be kept to "lowest level feasible." While the indications are that OSHA does not intend to re-write the Asbestos Regulation, it appears that this "fill-in-the-blanks" proposal is patterned after the asbestos regulations. Presumably, substances such as lead, benzene, etc would be controlled by establishing the Category, and then filling in exposure limits, etc.

The full text of the notice covered 100 pages in the Federal Register of Tuesday October 4, 1977 starting on Page 54147. A single copy of these proposed regulations is available on request. (Additional copies at $5.00 each). A write-up on these proposals from the NEW YORK TIMES is enclosed.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

cc-Active Members-List C
Regional Members

FMSI 17621

FRICTION MATERIALS STANDARDS INSTITUTE, INC.
BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

Washington & Business

Health Hazards and the Workplace

By DAVID BURNHAM

WASHINGTON — Seven years after Congress approved the Occupational Safety and Health Act, the Federal Government this week laid out an enforcement plan that, if upheld by the courts, could have a significant impact on the health hazards found in the workplace.

Up to the present, although the Occupational Safety and Health Administration has been subjected to an almost endless barrage of criticism by businessmen, many experts agree it has been largely ineffective in confronting the health problems created by industrial processes.

In more than six years of operation, for example, OSHA has managed to put into effect regulations limiting the exposure of only 17 of the more than 1,500 carcinogens that scientists believe are present in the nation's factories, hospitals, chemical plants, beauty shops, mines, cleaning stores and even office buildings.

• • •

A report by the General Accounting Office last spring said that at the existing pace it would take OSHA more than a century to regulate substances already identified as hazards and that new and dangerous products were being added to the environment every day.

"Thus," the General Accounting Office report concluded, "the bleak health conditions, which Congress sought to improve (in the Health Act of 1970) still exist, and many may be getting worse."

But on Monday, Labor Secretary Ray Marshall and Dr. Eula Bingham, the head of the OSHA, made a proposal that would provide a drastic change in the agency's approach to health problems and a great increase in the pressure on business to confront these problems.

• • •

Mr. Marshall and Dr. Bingham recommended the Federal Government's first comprehensive plan to control the hundreds of substances that produce cancer and the abandonment of the present substance-by-substance approach. Under the plan, model fill-in-the-blanks regulations would be established for carcinogens. More important, perhaps, the proposal provides that the Government will argue on a-once-and-for-all basis two key policy issues that in the past have been argued and reargued as each individual carcinogen came under regulation.

One issue the Government wants to decide as a general policy is what kinds of proofs will be required to declare that a given substance causes cancer. The second issue is what action the Government will expect a business to take after a substance is declared a carcinogen.

As spelled out in the 278-page Labor Department proposal, evidence developed during specifically defined tests on mamalian animals could be the basis for determining that a toxic substance is a carcinogen and, once so determined, that the exposure limit "will be set as low as feasible."

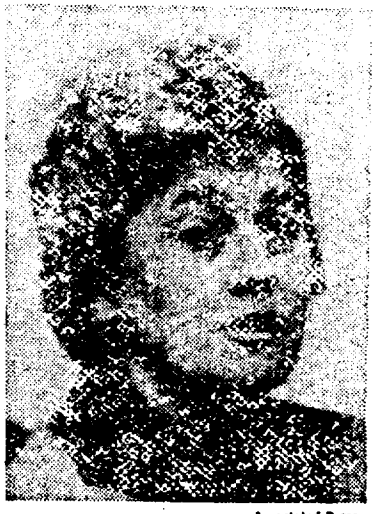
Assuming the new comprehensive cancer proposal survives the expected challenges by business and industry, the potential impact of the plan is enormous. During the last 75 years of increasing industrialization, for example, deaths from cancer have risen from 64 per 100,000 in 1900, to 162.8 per 100,000 in 1970 and 171.5 per 100,000 in 1975. Cancer is now killing about 1,000 persons per day in the United States and each year 900,000 new cases are diagnosed.

• • •

Somewhere between 60 percent and 90 percent of these cases, scientists now believe, are triggered by substances in the environment of America, many of which originally are generated in the workplaces regulated by OSHA.

While the human anguish behind these statistics is impossible to qualify, the costs can be estimated. According to some studies, about $1.8 billion a year is spent in the United States solely for hospital care for cancer patients, $3 billion to $5 billion a year is spent for all kinds of treatment of cancer and perhaps $12 billion a year is lost in earning power and productivity because of cancer.

Mr. Marshall referred to these broader costs to society—some of which are reflected in higher health-care premiums paid for the general population—when asked whether he had calculated what the new comprehensive enforcement plan would cost industry. The Secretary said that he believed the policy, when implemented, would save society a great deal of money.



Associated Press

Dr. Eula Bingham

But the proposal could result in a tremendous increase in Government pressure on industry to limit the emissions of cancer-causing agents and this would cost money—first industry's money, then the public's money when it buys what industry sell. The plastics industry, representing a segment of industry that would be particularly affected, said that it shared the Government's concern in wanting to reduce occupational exposure to carcinogens. But it denounced the plan as "nothing more than an attempt by a regulatory agency to devise a 'quick fix' method of dealing with the admittedly difficult task of reducing the risks of occupational health hazards. No push button formula will provide the right answer."

The potential significance of the OSHA proposal does not end in the workplace. Other Federal agencies—such as the Consumer Product Safety Commission, and the Environmental Protection Agency—regulate carcinogens on a substance-by-substance basis. Should this approach survive legal challenges—which past individual cases would suggest is likely—then they, too, could begin a broader, far speedier, cleanup drive.

In a memorandum accompanying the proposal, OSHA said that it was encouraging full discussion. Written submissions should be sent to the OSHA Docket Officer, Docket No. H-090, Room S6212, United States Department of Labor, Third Street and Constitution Avenue, N.W., Washington, D.C. 20210 by Dec. 8. A public hearing has been scheduled to begin on March 14, 1978.

FMSI 17622

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 611

October 11, 1977

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first three quarters of 1977 (9 months ending September 30, 1977). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.
2. Our Accountants will report the names of the members from whom reports are received.
3. Total pieces in each group will be reported.
4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8/14"dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to:

Marshall Granger & Company, C.P.A.
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by November 15, 1977. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

Distribution: Active Members-List G
Regional Members (paying Active Members Dues)

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., C. P. A.
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

9 MONTHS JANUARY 1, to SEPTEMBER 30, 1977

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over. _____

Disc Brake Linings _____

Clutch Facings _____

Total Pieces _____

STATISTICS SUPPLIED BY:

_____
Signature

_____
Company

_____
Telephone Number

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 610

September 26, 1977

UNITED AUTO WORKERS PETITION TO ESTABLISH AN

EMERGENCY TEMPORARY STANDARD FOR OCCUPATIONAL EXPOSURE TO ASBESTOS

Enclosed is a copy of a letter written by Mr. Douglas A. Fraser, President of the United Auto Workers to Mr. Ray Marshall, Secretary of Labor. This letter was written on July 6, 1977 and I received a copy of it at the recent meeting of the Asbestos Information Association in Washington.

Mr. Fraser is petitioning the Secretary to establish rules for occupational exposure to asbestos as the proposal appeared in the Federal Register on October 9, 1975. Along with medical surveillance, record keeping requirements, regulated areas and other controls in the workplace, there was the proposal to establish the 0.5 fiber per cubic centimeter maximum concentration for asbestos fibers. This proposal was to be a reduction from the current 2 fiber per cc level. By petitioning for an emergency standard, Mr. Fraser, among other things is attempting to speed the regulatory process and have the new standard finalized as soon as possible.

A copy of this letter is forwarded to you as a matter of information.

EWD/erc
Enc:
cc-Active Members (List C)
Regional Members (U.S.Dues)

E. W. Drislane
Executive Director

Solidarity House
8000 EAST JEFFERSON AVE.
DETROIT, MICHIGAN 48214
PHONE (313) 926-5000

INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE & AGRICULTURAL IMPLEMENT WORKERS OF AMERICA

DOUGLAS A. FRASER, PRESIDENT
EMIL MAZEY, SECRETARY-TREASURER

VICE-PRESIDENTS
PAT GREATHOUSE • KEN BANNON • DENNIS McDERMOTT • IRVING BLUESTONE • ODESSA KOMER • MARC STEPP • MARTIN GERBER

July 6, 1977

The Honorable Ray Marshall,
Secretary of Labor,
U.S. Department of Labor,
Washington, D.C. 20210

114959

Dear Secretary Marshall:

On behalf of the UAW I am writing to petition you to exercise your authority under Section 6(c) of the Occupational Safety and Health Act, 29 U.S.C. §655(c), to establish the proposed modification of the Occupational Standard for Exposure to Asbestos, 29 CFR 1910.1001, as an emergency temporary standard. In addition, the UAW petitions that as speedily as possible thereafter you commence hearings and promulgate a permanent standard consistent with recent medical findings, under Section 6(b) of OSHA, 29 U.S.C. §655(b), and 29 CFR 1911.3.

This petition is made on behalf of UAW members engaged in the manufacture of friction products, the repair and remanufacture of brakes and transmissions, maintenance workers in contact with asbestos insulation, chemical formulation workers and others who are regularly or incidentally exposed to this highly hazardous material.

These workers may suffer irreparable harm if the normal, time-consuming standard-setting process is pursued. The risk to health is documented by data presented in the preamble to the proposed standard, which notes that cancer can arise from both brief and low-level exposures to asbestos fibers. That proposal was dated September 30, 1975, over one and one-half years ago. Thus, any additional delay in acting on the proposal through normal channels, which could take additional years, may result in cases of lung cancer and mesotheliomas which would have been prevented by improved control over the workplace.

The delay in promulgation of the standard affects our members in two major ways. First, we are aware of several plants in the friction products industry which apparently are in compliance with the current standard of 2 fibers per cubic centimeter, but in which obvious steps to control airborne asbestos exposure have not been taken. The current standard thus allows pollution to the limit of 2 fibers per cubic centimeter, and workers are exposed to levels of asbestos fibers which could easily be lowered.

FMSI 17627

In addition, the current requirements for protective clothing and locker room facilities are tied to the measurement of levels of airborne asbestos fibers in excess of 2 fibers per cubic centimeter. In our experience the clothing of workers becomes quite visibly contaminated with asbestos containing dust or mud where airborne asbestos measurements do not indicate a requirement for hygiene practices under the current standard. Therefore, workers may take asbestos home, serving to provide a continuing source of preventable exposure to themselves, and a completely unconscionable exposure to their families.

While these issues have been pursued through collective bargaining, the weakness of the current standard is a major obstacle. Where such demands are won, the companies employing our members are placed at a competitive disadvantage to other employers.

We are prepared to submit data and to testify in support of these assertions.

We are aware that the standards-setting machinery of OSHA is currently greatly overloaded with the need for initial regulation of many substances. The solution to this problem, however, should not be to delay action but to increase staffing and support for these activities.

The environment of asbestos-using operations which are apparently in compliance with the current standard of 2 fibers per cubic centimeter are visibly dusty although not highly contaminated. Our members are well aware of the health hazards of the dust which they come in contact with every day and demand better control. The fact that the application of the current OSHA standard does not furnish relief is damaging to the credibility of the entire OSHA effort.

For these reasons, the UAW is filing this petition to request that the proposed modification of the Occupational Standard for Exposure to Asbestos, 29 CFR 1910.1001 be adopted as an emergency temporary standard, and that as soon as possible thereafter, a permanent standard consistent with recent medical evidence be promulgated.

I would appreciate an early reply as to the steps which will be taken in this area.

Sincerely,

Douglas A. Fraser

Douglas A. Fraser, President,
INTERNATIONAL UNION UAW.

DAF:er
er-opeiu494

cc: Dr. Eula Bingham
OSHA Docket H-033

FMSI 17628

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

NO. 609

September 13, 1977

SUBJECT: An Exxon Company presentation concerning the handling of asbestos.

Mr. Ike Weaver of Raybestos-Manhattan recently sent me a copy of a paper by Dr. Harvey B. Snyder of the Exxon Company which appeared in the Medical Bulletin. Dr. Snyder discussed some background on asbestos along with a description of some of the physical characteristics of asbestos fibers. He also wrote further on clinical asbestosis with some theories on the pathogenesis of asbestos. Following Dr. Snyder's presentation, the Exxon Company presented recommendations for the handling of asbestos. I have copied a few pages from this article as it appeared in the Medical Bulletin and am enclosing it for your information.

There are recommendations concerning the use of protective dust respirators when working with asbestos products. While most handling of asbestos has been covered in the OSHA standards there appears to be a logical classification of asbestos-containing materials in which friction materials are placed in Group Number V. After classification of friction articles in this group the Exxon presentation shows Table II with guides for the use of respiratory protection equipment. In particular this involves grinding, sanding, cutting, drilling, banding, riveting, and application of friction materials. It indicates type of respirator to be used depending on the operation. Following this is a list of the names and addresses of manufacturers and/or distributors of certain types of respiratory protection equipment. In addition, this paper included a listing of British sources of dust respirators.

This enclosed information may be of help to you and your customers as regards recommended respirator usage in working with friction materials.

E. W. Drislane
Executive Director

CC: Active Members - List C
Regional Members

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 608

August 12, 1977

NIOSH CONTRACT FOR INVESTIGATION OF HEALTH HAZARDS IN BRAKE LINING REPAIR WORKERS

We have been advised that the National Institute for Occupational Safety and Health (NIOSH) has contracted with Mount Sinai Hospital in New York for an investigation of health hazards in brake lining repair and maintenance workers exposed to asbestos. A copy of the memo from the Asbestos Information Association (AIA) on this contract is enclosed.

The contractor, Mount Sinai is of course the research home for Dr. Selikoff, Dr. Rohl, Dr. Nicholson and others who have participated in studies on the epidemiology of asbestos. The contract, for $180,600, is for the period June 30, 1977 to July 29, 1978.

Among other things, Mt. Sinai will attempt to locate a cohort of brake lining repair and maintenance workers occupationally exposed to short asbestos fibers principally before 1955, and conduct a study of their mortality experience. They will conduct a medical survey of workers in brake repair shops. They will attempt to characterize the exposure of workers in past years. In general, the contract is for a study on brake repair workers from 1940 to 1970 with attempts to characterize exposure and determine medical effects on the workers.

They will most likely solicit cooperation from friction material manufacturers and their customers. They will apparently have recourse to court orders where access to facilities is withheld on a voluntary basis.

For those wishing copies, we have a copy of the NIOSH Contract. It is a 17 page document which we will send on request.

EWD/erc
Enc:
Distribution: List C

E. W. Drislane
Executive Director

ASBESTOS INFORMATION ASSOCIATION
NORTH AMERICA
1835 K Street, N.W., Washington, D.C. 20006 • (202) 223-4885

5 August 1977

Memorandum For: Messrs. B. J. Iwarsson, Abex Corp.
Wyatt S. Jones, Safeguard Automotive Corp.
John H. Marsh, Raybestos-Manhattan, Inc.
John Riopelle, The Bendix Corp.
William M. Sleeth, Royal Industries, Inc.
Edward R. Zacharias, Molded Materials Co.

Subject: Contract for Investigation of Health Hazards in Brake Lining Repairs and Maintenance Workers Occupationally Exposed to Asbestos

The National Institute for Occupational Safety and Health has contracted with Mt. Sinai School of Medicine, New York City, for an investigation of health hazards in brake lining repair and maintenance workers occupationally exposed to asbestos. The contract was awarded June 30 and expires July 29, 1978.

It is assumed that some friction materials manufacturers will be contacted by the contractor during the course of this work. NIOSH project officers are: Tasks I and II - Cynthia Robinson (513) 684-2761; Task III and IV - Dr. M. J. Smith, (513) 684-8386; Robert A. Taft Laboratories, 4676 Columbia Parkway, Cincinnati, Ohio 45226.

A copy of the contract is enclosed for information.

R. H. Mereness
Executive Director

RHM:v

cc: E. W. Drislane, FMSI
Sue Loomis, APRA

BRITISH SOURCES--DUST RESPIRATORS

Angus Fire Armour
George Angus & Co. Ltd.
Bentham
Lancaster, LA2 7NA

Chapman and Smith Ltd.
Safir Works
East Hoathley, Nr. Lewes
Sussex, BN8 6EW

Draeger Normalair Ltd.
Kitty Brewster, Blyth
Northumberland, NE24 4RH

James North & Sons Ltd.
P.O. Box 3, Hyde
Cheshire, SK14 1RL

The Leyland & Birmingham Rubber Co. Ltd.
Leyland, Nr. Preston
Lancashire, PR5 1UB

Martindale Protection Ltd.
Neasden Lane
London NW10 1RN

Mine Safety Appliances Co. Ltd.
Queenslie Industrial Estate
Glasgow, G33 4BT
Scotland

Phoenix Accessories (Milnsbridge) Ltd.
77 Waterloo Road, Pudsey,
Yorkshire, LS28 8DQ

Safety International
British American Optical Co. Ltd.
Radlett Road
Watford, Herts, WD2 4LJ

Protector Safety Products (UK) Ltd.
Protector House
719 Banbury Avenue
Slough
Berkshire, SL1 4LL

Siebe Gorman & Co. Ltd.
Davis Road, Chessington
Surrey, KT9 1TW

Staysafe & Co., Ltd.
909 Wolverhampton Road
Warley
Worcestershire, B69 9RR

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 0 8

August 12, 1977

NIOSH CONTRACT FOR INVESTIGATION OF HEALTH HAZARDS IN BRAKE LINING REPAIR WORKERS

We have been advised that the National Institute for Occupational Safety and Health (NIOSH) has contracted with Mount Sinai Hospital in New York for an investigation of health hazards in brake lining repair and maintenance workers exposed to asbestos. A copy of the memo from the Asbestos Information Association (AIA) on this contract is enclosed.

The contractor, Mount Sinai is of course the research home for Dr. Selikoff, Dr. Rohl, Dr. Nicholson and others who have participated in studies on the epidemiology of asbestos. The contract, for $180,600, is for the period June 30, 1977 to July 29, 1978.

Among other things, Mt. Sinai will attempt to locate a cohort of brake lining repair and maintenance workers occupationally exposed to short asbestos fibers principally before 1955, and conduct a study of their mortality experience. They will conduct a medical survey of workers in brake repair shops. They will attempt to characterize the exposure of workers in past years. In general, the contract is for a study on brake repair workers from 1940 to 1970 with attempts to characterize exposure and determine medical effects on the workers.

They will most likely solicit cooperation from friction material manufacturers and their customers. They will apparently have recourse to court orders where access to facilities is withheld on a voluntary basis.

For those wishing copies, we have a copy of the NIOSH Contract. It is a 17 page document which we will send on request.

EWD/erc
Enc:
Distribution: List C

E. W. Drislane
Executive Director

ASBESTOS INFORMATION ASSOCIATION
NORTH AMERICA
1835 K Street, N.W., Washington, D.C. 20006 • (202) 223-4885

5 August 1977

Memorandum For: Messrs. B. J. Iwarsson, Abex Corp.
Wyatt S. Jones, Safeguard Automotive Corp.
John H. Marsh, Raybestos-Manhattan, Inc.
John Riopelle, The Bendix Corp.
William M. Sleeth, Royal Industries, Inc.
Edward R. Zacharias, Molded Materials Co.

Subject: Contract for Investigation of Health Hazards in Brake Lining Repairs and Maintenance Workers Occupationally Exposed to Asbestos

The National Institute for Occupational Safety and Health has contracted with Mt. Sinai School of Medicine, New York City, for an investigation of health hazards in brake lining repair and maintenance workers occupationally exposed to asbestos. The contract was awarded June 30 and expires July 29, 1978.

It is assumed that some friction materials manufacturers will be contacted by the contractor during the course of this work. NIOSH project officers are: Tasks I and II - Cynthia Robinson (513) 684-2761; Task III and IV - Dr. M. J. Smith, (513) 684-8386; Robert A. Taft Laboratories, 4676 Columbia Parkway, Cincinnati, Ohio 45226.

A copy of the contract is enclosed for information.

R. H. Mereness
Executive Director

RHM:v

cc: E. W. Drislane, FMSI
Sue Loomis, APRA

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 607

July 29, 1977

CONSUMER PRODUCT SAFETY COMMISSION

At the Annual Meeting, those attending were advised that the friction materials industry is now coming under review by an additional federal bureau. In addition to the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA), a new bureau--the Consumer Product Safety Commission--will be considering brake linings. In particular, they would be studying asbestos containing brake linings, and I would imagine clutch facings.

Enclosed is a copy of a memo that was written by Mr. John Marsh, Director of Environmental Affairs at Raybestos-Manhattan, Inc., to others in the Raybestos organization. This letter indicates that brake lining will now be studied "to determine whether or not such products should be banned." The implications of such a study and the consequences of a possible ban on asbestos containing friction materials are obviously far-reaching.

Based on reaction at the Annual Meeting, we will follow-up on this subject. We are distributing a copy of Mr. Marsh's letter in accordance with recommendations of our Board of Directors.

The foregoing is for your information.

EWD/erc
Enc:
cc-Delegates & Alternates
Active Members (List C)
Regional Members (Active Fee Level)

E. W. Drislane
Executive Director

INTER ORGANIZATION

Raybestos Manhattan

Corporate - Trumbull
DIVISION and LOCATION

TO: Messrs. R. M. Gordon
W. S. Simpson

DATE: May 13, 1977

SUBJECT: Consumer Product Safety Commission

Officials of the CPSC take pride in referring to their organization as an "open" agency. All files are open to the public for inspection and copying and all meetings are also open to the public.

There are some benefits in being able to peruse Commission files at will, but scheduling meetings with Commission personnel is a bit awkward.

My first request for a meeting on Tuesday was turned down because I had not followed proper procedure. It was explained that notice of scheduled meetings (public hearings) must be published at least seven days in advance in the CPSC schedule of hearings in order that all interested parties may have an opportunity to participate and to have knowledge of the Commission's position on the matters discussed. Thus every meeting is a public hearing.

I then called on Stewart McKinney who was able to arrange an appointment on Thursday with Vincent Rocque, Esquire, Special Assistant to Commissioner Barbara Franklin. Franklin is considered to be understanding of the problems of industry in regulatory matters.

Mr. Rocque was very cordial but declined to discuss matters of substance. He said the Commissioners would instruct the staff to investigate consumer use of brake linings to determine whether or not such products should be banned and referred me to Michael Brown, Executive Director or Suzanne Schiffer, Director of Communications for further information. He commented that it would be months before action would be taken with respect to brake linings but suggested it would be a good idea to "get in at the bottom of the curve".

Rocque advised that the Commission's Product Safety Advisory Council would meet next Monday and Tuesday to review a draft policy on voluntary safety standards and would discuss the Commission's priorities setting mid-year review of its activities. A copy of the Membership of the Advisory Council is attached. The meeting will be covered by the AIA/NA.

Mr. Rocque then took me to the reference room and showed me the location of the asbestos file. There is a battery of Xerox machines for copying purposes (no charge) and there are absolutely no restrictions on what one may look at.

It was interesting as well as somewhat disconcerting to discover, in a petition filed July 15, 1976 by the Natural Resources Defense Council requesting banning of asbestos containing dry wall patching compounds, detailed references to asbestos exposure among brake service mechanics. In fact, the authors of the petition have used data in a Mount Sinai study of brake mechanics alleging that "over one-half of the mechanics had characteristics of asbestosis which are generally thought of as indicators for cancers" as a basis for justifying the ban on asbestos containing patching compounds, because the exposure levels in the two types of work are assumed to be similar.

Although the petition referred to contains some outrageous exaggerations and probably mistatements as well, it is fully documented (74 references). Responding to this and other petitions that can be expected will not be a simple task.

I plan to contact the Executive Director of the Commission, Mr. Brown at the time of the next AIA/NA meeting in June.

John H. Marsh

/as

attachment

cc: Messrs. F. S. Daly
R. R. Moalli
R. B. Sims
I. H. Weaver
Dr. H. C. Lewinsohn

993 North Main Street

PSAC Membership
cont'd

INDUSTRY

William L. Hollingsworth — June 1978
Stone & Webster Management
Consultants, Inc.
90 Broad Street
New York, New York 10004
(212) 269-4224

Alan L. Potter — June 1978
Chairman, Board of Directors
Frank R. Jelleff, Inc
1000 East Broad Street
Falls Church, Virginia
(703) 532-1200

Robert McCleary — June 1977 *
Manager of Consumer Affairs
Corning Glass Works
Corning, New York 14830
(607) 974-9000

GOVERNMENT

Audrey C. Gates — June 1977
Assistant Director & Program
Coordinator
Mayor's Office of Consumer Affairs
Rm 1W12, City Hall
New Orleans, La. 70112
(504) 586-4441

William P. Hogan — June 1978
Deputy Commissioner
Bureau of Electrical Inspection
City of Chicago-Dept of Bldgs
121 N. LaSalle
Chicago, Ill. 60602
(312) 744-3460

Silvio Patti — June 1977
Senior Program Manager
Electrical Electronics Systems
Technology Center, OSHA, Dept of Labor
Washington, DC 20036
(202) 523-7207

Rena K. Plaxe — June 1977 *
Director, Office of Consumer Affairs
Township of Parsippany-Troy Hills
Parsippany, New Jersey 07054
(201) 335-0700

*Serving Unexpired Term

FMSI 17639

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 0 6 A

August 19, 1977

DR. H. C. LEWINSOHN PRESENTATION

"MEDICAL ASPECTS OF OCCUPATIONAL EXPOSURE TO ASBESTOS"

On July 20, 1977 we distributed copies of the presentation Dr. Lewinsohn made at our Annual Meeting in Scottsdale. In my covering memo, I incorrectly stated that "...Dr. Lewinsohn did not believe there was sufficient medical evidence to indicate that the 2 fiber/cc level for occupational exposure to asbestos should be reduced."

Dr. Lewinsohn advises that statement in my memorandum was not correct. He indicated that as the present 2 fiber/cc standard had been recommended in 1968 and introduced into legislation since 1970 that sufficient time had not yet elapsed to validate it or invalidate it as a safe level for cancer or mesothelioma although it did present an apparent acceptable safe level for asbestosis allowing for a 1% risk of developing the earliest demonstrable effects. Dr. Lewinsohn did not indicate that the 2 fiber/cc level was inviolate.

This bulletin is to act as a correction of earlier BULLETIN NO. 606.

EWD/erc
cc-Delegates & Alternates
Active Members-List C
Regional Members

E. W. Driskane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 606

July 20, 1977

DR. H. C. LEWINSOHN PRESENTATION

"MEDICAL ASPECTS OF OCCUPATIONAL EXPOSURE TO ASBESTOS"

Enclosed is a copy of Dr. Lewinsohn's presentation to our Annual Membership Meeting in Scottsdale, Arizona on June 22, 1977. Dr. Lewinsohn included a slide program to illustrate several items discussed in this paper. At the conclusion of his talk, Dr. Lewinsohn indicated that he did not believe there was sufficient medical evidence to indicate that the 2fiber/cc level for occupational exposure to asbestos should be reduced.

On Page 21 of Dr. Lewinsohn's transcript, reference is made to a technical bulletin to be issued by NIOSH outlining acceptable work practices for brake service mechanics. A preliminary draft of the NIOSH recommended procedures for asbestos brake and clutch servicing--just released by NIOSH--is enclosed. This draft is condensed, but our "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing" (copy also enclosed) are in harmony with the NIOSH recommendations.

With transmittal of Dr. Lewinsohn's paper it was suggested that members provide appropriate work practice instructions for all workers who may subsequently handle your products--and in particluar those doing brake service work.

EWD/erc
cc-Delegates & Alternates
Active Members-List C
Regional Members

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 605

July 8, 1977

HISTORICAL SALES PROGRAM

The historical sales program continues on a quarterly basis. Regional Members using the copyrighted FMSI Numbers for marketing their products in the United States may participate if they wish.

The Institute is requesting details of pieces sold for the first half of 1977 (6 months ending June 30, 1977). The rules for the reporting details remain unchanged.

1. Quantities will be reported in pieces (not units). For roll linings, each foot of length will be one piece.

2. Our Accountants will report the names of the members from whom reports are received.

3. Total pieces in each group will be reported.

4. "Clutch Facings" does not include gear tooth discs, automatic transmission discs, or the 8/14" dia., (3/16 to 1/2" thick) asbestos composition discs.

The data as filed will be confidential. Totals for each group will be shown and there is no way of determining quantities by individual members.

You will be receiving from Marshall Granger & Company, Certified Public Accountants, a form for completing this information. Please return it to:

Marshall Granger & Company, C.P.A.
1600 Harrison Avenue
Mamaroneck, New York 10543

If you report, please have your figures in by August 15, 1977. If you do not wish to report these figures, no reply is necessary. Only those reporting figures will receive the industry totals when the data is summarized. A sample form and definitions are attached.

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

Distribution: Active Members-List G
Regional Members (paying Active Members Dues)

EXHIBIT "A"

STATISTICAL PROGRAM OF THE

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Mail to:

MARSHALL GRANGER & CO., C. P. A.
1600 Harrison Avenue
Mamaroneck, New York 10543

* * * * * * * * * *

See instructions for sales to other members.

Pieces sold to United States distributors, jobbers, private brands, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies, or other customers for use in the United States replacement market:

6 MONTHS JANUARY 1, to JUNE 30, 1977

Brake linings less than 3/4" nominal thickness (See explanation for roll lining). _____

Brake blocks, nominal thickness of 3/4" and over _____

Disc Brake Linings _____

Clutch Facings _____

Total Pieces _____

SAMPLE FORM

USE REPORTING FORM TO BE SENT BY ACCOUNTANTS

STATISTICS SUPPLIED BY: _____
Signature

_____
Company

_____
Telephone Number

FMSI 17643

EXHIBIT "B"

DEFINITION FOR HISTORICAL SALES

PIECES

The reports will show pieces of friction material, in groups as shown:

Group	Description	Normal Usage
Brake Lining	Friction materials less than a nominal 3/4" thickness (See note on roll lining)	Normally, one piece to a shoe
Brake Blocks	Friction materials with a nominal thickness of 3/4" and over	Normally, two pieces to a shoe
Disc Brake Linings	Friction materials sold (for disc brakes) to be attached to the shoe, or sold as a unit molded, bonded or riveted to the shoe	Normally, one piece to a shoe
Clutch Facing	Friction materials of annular shape, or segments thereof	Normally, two annular pieces per clutch plate

Note: For roll lining only, consider each foot of length equals one piece.

REPLACEMENT SALES TO UNITED STATES MARKET

This reporting is for sales to the United States replacement market only. Do not include sales to other markets. This includes sales under the friction material manufacturer's own name or brand name used by the customer, to automotive warehouse distributors, jobbers, rebuilders, brake specialists, fleets, mass merchandisers, direct consumers, government agencies or other customers for use in the United States replacement market.

When a friction materials manufacturer is shipping to a vehicle manufacturer, brake manufacturer, or clutch manufacturer, but has no reasonable way of determining if the pieces are for original equipment or replacement purposes, estimates will not be used - these pieces will not be reported. However, where a friction material manufacturer is shipping to a point known to be used for replacement, or where he stencils or otherwise identifies the pieces as being for replacement purposes, or where the shipments otherwise are obviously known to be for replacement, these pieces will be reported.

The member who sells to the type customer or user indicated above will report those pieces sold, even if purchased from another Active Member or Regional Member.

When you sell your friction materials to another Member (Active or Regional) do not report those sales! Materials sold to Licensee Members of the Institute for the replacement market should be included.

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

B U L L E T I N

N O. 6 0 4

July 8, 1977

QUALITY CONTROL PROGRAM

At the June 1977 Board of Directors meeting, a report entitled "A Quality Control Program for the Friction Materials Industry" was reviewed, and it was recommended that it be released to the Membership. Your copy of this report is enclosed.

This was prepared in response to questions arising as to manufacturers exercising "due care" in assuring that their products conform to safety standards, and "good faith" when safety related defects may be alleged for products not specifically covered by a standard. A Quality Control Subcommittee was formed to report to the Brake Performance Study Committee, and worked on this project starting in 1973.

This program is for your information. Except in a few cases, it is not being released to non-members. As regards reference material, it is suggested that those interested contact the SAE or ASTM for referenced standards and practices. Certain items such as the Permafuse and Goodrich booklets would have to be secured by requesting same from those manufacturers. For other referenced material, other than text books and military specifications, we will provide copies on request. However, where the requested material comes to more than 50 pages, we will charge a basic price of $3.00, plus .05 per page over 50 pages.

A good reference book for the SAE material is "Motor Vehicle Braking Systems and Components," HS24, 1977 Edition. It is available from:

Society of Automotive Engineers
400 Commonwealth Drive
Warrendale, Pa. 15096

EWD/erc
Enclosure:

E. W. Drislane
Executive Director

cc-Active Members-List C
Regional Members
Brake Performance Study Committee
Quality Control Subcommittee

Friction Materials Standards Institute, Inc.

A QUALITY CONTROL PROGRAM

FOR THE

FRICTION MATERIALS INDUSTRY

Friction Materials Standards Institute
East 210 Route 4
Paramus, New Jersey 07652

FMSI 17646

A QUALITY CONTROL PROGRAM

* * * * *

Reference Information

S C O P E

This document presents reference information for a quality control program for the friction materials industry. It includes programs for quality throughout all stages of the manufacturing cycle including purchased material, processing, assembly, inspection and testing, as well as some recommendations for field identification. It is a compilation of much current practice used by present manufacturers. The extent to which the total information is used is a matter of individual discretion.

I QUALITY PROGRAM MANAGEMENT

A. The program should be such that personnel can:

1. Analyze and use Quality Records.
2. Identify and evaluate Quality problems.
3. Initiate, recommend or provide solutions.

B. The Responsibility and Organization for Quality:

1. Quality personnel should have well defined responsibilities and authority and the organizational freedom to perform their function.
2. Definition of responsibilities and authority should be made in a Quality Manual with a clear statement of company policy and procedures to be used in carrying out this policy.
3. The Quality Manual should also include:

3.1 Objectives
3.2 Organizational Charts
3.3 Job Descriptions
3.4 Relationships between Departments
3.5 Inspection Planning
3.6 Raw Material Control
3.7 Process Control
3.8 Finished Goods Control
3.9 General Test Methods
3.10 Corrective Action Responsibility

Ref. 11.2 Mil-Q.-9858A - Military Specification
11.6 Quality Control Handbook, Juran

FMSI 17649

II CONTROL OF PURCHASED MATERIALS AND COMPONENTS

All purchased materials and components should be controlled by a documented system.

A. Raw Materials

Each manufacturer should have the assurance that each raw material he purchases meets the requirements, mainly the chemical and physical properties, of the material. His method of assurance is by his receiving inspection, periodic testing, supplier surveillance or certification, or any combination of the foregoing. The following is a listing of the tests that may be run on various raw materials:

1. Resins

    1.1 Hot Plate Cure
    1.2 Melting Point
    1.3 Inclined Plate Flow
    1.4 Hexa Content
    1.5 Viscosity
    1.6 Solids
    1.7 Gel Time
    1.8 Screen Analysis

2. Asbestos or Other Fiber Reinforcements

    2.1 Quebec Standard
    2.2 Screen Analysis
    2.3 Bauer-McNett
    2.4 Surface Area
    2.5 Crudy Content

3. Organic & Inorganic Friction Modifiers

    3.1 Screen Analysis
    3.2 Solvent Extract
    3.3 Ash
    3.4 % Volatile at Various Temperatures
    3.5 Oil Absorption

4. Solvents

    4.1 Distillation
    4.2 Kauri-Butanol
    4.3 Specific Gravity
    4.4 Boiling Point
    4.5 Refractive Index

B. Components

A manufacturer should be certain the components he purchases meet their various physical, chemical visual and dimensional requirements. The components should be tested by receiving inspection, periodic testing, assembly testing, supplier surveillance or certification, or any combination of the foregoing. Listed below are some of the components and typical properties which can be checked:

1. Rivets & Bolts

    1.1 Shank Diameter
    1.2 Shank Length
    1.3 Head Diameter and Angle
    1.4 Hardness
    1.5 Thread Size
    1.6 Function

2. Adhesive

    2.1 Solids
    2.2 Viscosity
    2.3 Flow

3. Shoes

    3.1 Flatness (Disc) or Outside Radius (Shoe)
    3.2 Thickness (Disc) Web and Table (Shoe)
    3.3 Rivet Hole Diameter (if riveted)
    3.4 Rivet Hole Countersink (if riveted)
    3.5 Rivet Hole Pattern (if riveted)
    3.6 Structural integrity

4. Lining

    4.1 Flatness (Disc) or Inside Radius (Shoe)
    4.2 Thickness
    4.3 Rivet Hole Diameter
    4.4 Rivet Hole Counterbore
    4.5 Rivet Hole Pattern
    4.6 Friction and Wear
    4.7 Acetone Extract
    4.8 Ash
    4.9 Gogan Hardness
    4.10 Specific Gravity

III CONTROL OF MANUFACTURING

A. Pilot Production Run Procedure

The manufacturer should have an established written procedure for the accomplishment of pilot production evaluations. It is recommended that this procedure be envoked whenever a new material is being "scaled up" for production and/or whenever new or replacement items of production equipment are being introduced. The following topics are recommended as integral parts of the pilot production procedure.

1. Supervision of the process by assigned representative(s) of both the production and engineering departments.

2. Documentation of all processing and raw material parameters and retention of these for the marketing life of the product or for periods as required by regulations.

3. Retention of samples of the resulting product for a like period.

4. Chemical, physical and/or frictional testing of the product from the pilot production run should be conducted in order to ascertain whether the product's properties are within the limits determined during the product development stage.

5. A conference should be held to review engineering and economic features of the pilot production run and the resulting product.

B. Establishment of Design Limits

The product development engineer(s) should retain accurate records of physical and performance characteristics of a product throughout its development and pilot production evaluations. The scope of these records should cover all characteristics of the product which would be necessary to establish meaningful product design limits. Design limits which are calculated from pre-production material should be continually reestablished and reverified through the pilot production run and normal "onstream" production.

The frequency of testing and verification should be quite high during the development and pilot run stages until the product proves to exhibit consistent properties. Some suggested approaches are listed below.

1. Experimental Product Stage

   1.1 High frequency of hardness and density.
   1.2 High frequency of verification of frictional properties.
   1.3 High frequency of verification of dimensional characteristics.
   1.4 Sample extremes of hardness and density distribution for performance evaluation.

1.5 Set up tentative design limits based on accepted statistical methods.

2. Pilot Production Run Stage

2.1 Reduce frequencies if sampled parts test within limits of 1.5.
2.2 Calculate new design limits employing the production data using accepted statistical methods.
2.3 If statistical data indicates a change in limits, parts should be revalidated for their performance characteristics.

C. In-Process Control

The manufacturer should establish and maintain procedures for physical examination, measurement or test of the products at significant work operations. This covers a wide range with the following as examples:

1. Process Control Charts
   1.1 Temperature
   1.2 Pressure
   1.3 Time

2. Types of physical tests
   2.1 Gogan or other Applicable Hardness
   2.2 Specific Gravity
   2.3 Tensile
   2.4 Dimensional

3. Audit-type check
   3.1 Setup approval
   3.2 Roving inspector
   3.3 Operator inspector

These examples and others should be employed in any combination in order to protect the product quality as deemed appropriate by the manufacturer. It is recommended that important in-process controls be traceable to manufactured materials.

D. Gage Control

Manufacturer is responsible for the selection, application and maintenance of all inspection equipment. Inspection equipment can be defined as any gage or other measuring and testing device used to assure product conformance. These could be normal purchased items such as micrometers and verniers or specifically designed gages. Sometimes production tooling, such as jigs, fixtures or templates are used for inspection purposes.

The following is recommended:

1. Assure all new inspection equipment is correct when purchased.

2. Repair and calibrate all inspection equipment on a written scheduled basis.

3. Maintain a master file on all inspection equipment.

IV SPECIFICATIONS, DRAWINGS AND CHANGE CONTROL

A. Specification System

Documented procedures for product manufacturing should be provided to specify acceptable manufacturing practices and techniques. These procedures could include:

1. Product Engineering specifications
2. Machine setup instructions
3. Operator Production instructions
4. Process card and/or Routing information which would give process specifications such as thicknesses, tolerances, tool numbers, etc.
5. Inspection instructions
6. Procedures for handling discrepant material

Only properly approved and accepted materials (purchased items) shall be released to Production against material requisitions. Provisions should be made for lot control of any production run.

B. Change Control of Drawings, Specifications and Procedures

Each manufacturer should have a documented system in effect to insure that the current applicable drawings, procedures or specifications are in use.

Following is a list of criteria to be considered:

1. Established distribution lists for all drawings, specifications, and written procedures.
2. A recall system for all obsolete drawings etc. from all plant locations and/or individuals.
3. A master file of documents managed by a limited number of personnel. This file will reflect all changes.
4. Control of reproduction of drawings, procedures and specifications.

V IDENTIFICATION SYSTEMS

A. Internal

A manufacturer should be able to identify materials and processing used for a batch, lot, or time period. This identification should be associated with:

1. Materials and components used.
2. Routing of product through the manufacturing cycle.
3. In-process controls.

B. External

1. Regulatory requirements for edge coding and manufacturer identification and possible expansion thereof.

   1.1 Regulation V-3 Edge Coding
   1.2 NHTSA Docket 73-14, Manufacturer Identification Code

2. Recommended additional identification to help a manufacturer limit size of a recall.

   2.1 Any individual in subsequent assembly (as for example, a re-builder) should provide identification on the assembly.
   2.2 Batch, lot or time period code.

VI DOCUMENTATION AND RECORD RETENTION

In order to demonstrate compliance to standards and care in manufacturing, the manufacturer should have an established record retention system. The guidelines for this system are:

A. Existing Federal Standards

When a Federal Standard exists, the following guides should be used:

1. U.S. Government "Guide to Record Retention Requirements."
2. NHTSA requirements are now in effect for vehicle manufacturers (5 years) and tires (3 years).
3. Public Law 93-492 Defect Notification Requirement of 8 years for equipment manufacturers.

B. No Federal Standards

Record retention recommendations to show evidence of control where not required by regulations are:

1. Processing control data, 3 months.
2. Friction, Physical tests, 2-7 years.
3. Other, minimum 2 years - maximum 7 years.

VII CONTROL OF FINISHED PRODUCT

A. Inspection

Each manufacturer should have established an effective inspection system for control of quality.

The following are elements of that system:

1. Documented inspection procedures that define property to be checked, sample size or frequency, method of test and tools and gages used.

2. A record system for the data generated via inspection that is traceable to lot, batch or production time period, and retained in accordance with accepted industry practice and government regulations.

3. Calibration records for all equipment used in the inspection process. (See section III, paragraph D Gage Control)

4. A documented system that provides for the identification and segregation of non-conforming materials.

5. A system that allows the final inspection data to be reviewed and related to the processing steps for analysis and corrective action.

B. Testing

Each manufacturer should have a set procedure of batch or periodic control tests that are performed on his finished lining. Tests that could be performed are:

1. Chemical Tests
   - 1.1 Acetone Extract
   - 1.2 Ash
   - 1.3 Pyrolytic Gas Chromatography
   - 1.4 Infrared Spectrum
   - 1.5 Differential Thermal Analysis

2. Physical Tests
   - 2.1 Flexural Strength
   - 2.2 Tensile Strength
   - 2.3 Shear Strength
   - 2.4 Gogan or other hardness
     - 2.4.1 SAE J379a
   - 2.5 Specific Gravity
     - 2.5.1 SAE J380
   - 2.6 Hot Gogan
   - 2.7 Hot Compression
   - 2.8 Swell
     - 2.8.1 SAE J160

3. Friction and Wear Tests
   - 3.1 Vehicle Testing
     - 3.1.1 SAE J843d
     - 3.1.2 DOT 121
     - 3.1.3 DOT 105-75
     - 3.1.4 SAE J134a
     - 3.1.5 SAE J786a
     - 3.1.6 SAE J108a
     - 3.1.7 Other applicable procedure
   - 3.2 Inertia Dynamometer
     - 3.2.1 SAE J 667 or any variation
     - 3.2.2 SAE J212
     - 3.2.3 Other applicable procedure
   - 3.3 Bench Dynamometer

     Chase Machine
     - 3.3.1 SAE J661a
     - 3.3.2 GM-R 60

     FAST Machine
     - 3.3.3 Ford FAST

VIII FREQUENCY OF VERIFICATION OF DESIGN LIMITS

A. The frequency that various physical, chemical, mechanical and dimensional properties are verified on a production basis is determined by a combination of very complex variables. The items that are taken into consideration when setting up a test frequency or sampling plan are:

1. The risk of making a bad decision (ie., letting bad material pass).
2. The risk of rejecting good material.
3. The economic consequences of not catching defective material.
4. The cost of the test required to determine the property.
5. The capability of the process for maintaining the property.
6. The importance of the property to functionality.

B. Any sampling plan has two risks associated with it as determined by its operating characteristics curve. These are:

1. The risk of passing bad lots that have a higher defect level than desired.
2. The risk of rejecting good lots.

The manufacturer should be aware of these risks and choose his plan accordingly.

C. As the frequency of testing increases:

1. Testing costs go up.
2. Possible defects may be discovered sooner.
3. Assuming adequate traceability, the size of any recall goes down.

D. The method of selecting the product for test should be appraised carefully to assure that it fits the way the defect occurs. A random sample is an acceptable method only when one is ignorant of the process, the product or the way the defect occurs. A small sample selected with the proper engineering logic and process knowledges is more meaningful than a large random sample.

E. Sampling in lieu of 100% testing can be used only if the process capability can be demonstrated. For properties that can be defined with a number (thickness, shear strength, density, length, etc.) a process is considered capable if during an extended period of time the specified tolerance is at or within the limits calculated by accepted statistical techniques.

IX ATTACHMENT OF FRICTION MATERIAL

Documented procedures and frequencies for verifying the quality of attachment should be developed by the manufacturer. These procedures can consist of a combination incoming material controls, in-process controls and both destructive and non-destructive assembly testing. Requirements and standards for determining the quality and integrity of the attachment should be documented.

A. Controls Used for Attachment

1. Bonded or Integrally molded attachment (REF: SAE J840)

1.1 Cement Controls

1.1.1 Supplier Certifications
1.1.2 Physical Tests (solids, flow, viscosity, etc.)
1.1.3 Film Thickness
1.1.4 Storage Conditions

1.2 Bonding or Molding Controls

1.2.1 Time and Temperature cycle
1.2.2 Pressure

1.3 Assembly Testing

1.3.1 Shear Testing
1.3.2 Chisel Testing
1.3.3 Proof Load Test

2. Riveted or Bolted Attachment

2.1 Dimensional Checks

2.1.1 Hole and rivet (or bolt) diameter
2.1.2 Proper countersink angle of hole and rivet (or bolt)
2.1.3 Counterbore diameter
2.1.4 Inside radius (arced) or flatness (disc) of material

2.2 Inspection of Assembly

2.2.1 Lining Cracks
2.2.2 Rivet Length
2.2.3 Proper Peening of Rivet (Rivet tightness)

X FIELD PROBLEMS AND DEFECT REPORTING

A. A formal system to expeditiously process field complaints should be established so that:

1. Proper corrective action can be initiated.
2. A record system of defects and corrective action can be maintained.

B. This reporting system should:

1. Be initiated at the level at which the defect is encountered.
2. Be processed directly into the responsible group with possible screening by field engineering.
3. Have emphasis on the speed at which accurate product defect information is fed into the proper engineering or Quality Control group at the manufacturing level.
4. Be completely described in the Quality Manual with responsibility for investigation and corrective action clearly spelled out.

C. The report used should describe the defect in sufficient detail to aid in the establishment of preventive measures and should include the following information:

1. Product Designation
2. The Date Reported
3. Whether or not the item is a safety related defect.
4. Type of Defect
5. A Description
6. Names and Addresses of people involved.
7. A brief run down as to how the defect was discovered.
8. Any date code and manufacturing location information available.
9. The date parts were received by the customer.
10. Information on whether the samples were returned for examination.

D. A record should be kept on the frequency and nature of reported defects in such a manner as to allow analysis of the data.

E. The manufacturer should be aware of the contents of Public Law 93-492 and his responsibility for notification to the Secretary of the Department of Transportation regarding non-conformance of material or goods to existing federal standards or the discovery of a safety related defect not covered by existing standards.

A QUALITY CONTROL PROGRAM

Reference Information (such as ASTM, SAE, etc.)

FMSI	Reference-Number	Description
11.1	Ford Q-101	Ford Q-101 Quality Control Specification.
11.2	MIL-Q-9858A	Military Specification - Quality Control Requirements.
11.3	MIL-105	
11.4		Duncan: "Quality Control and Industrial Statistics"
11.5		Hansen: "Quality Control Theory and Applications"
11.6		Juran: "Quality Control"
11.7	FMSI	Easton: "Suggested Outline for Quality Control"
11.8		Dodge-Romig Sampling Plans
11.9		GM Quality Standard for Purchased Material.
11.10	FMSI	Easton: "Sample Size and Test Frequency Selection"

FMSI	Reference-Number		Description
12.1	SAE J866a		"Friction Identification System for Brake Linings and Brake Blocks for Motor Vehicles"
12.2	Regulation V-3		Vehicle Equipment Safety Commission Regulation V-3 (Sections 6, 7, 8)
12.3	SAE J659	Color Codes	"Color Codes for Location Identification of Combination Linings of Two Different Materials or Two Shoe Blocks"
12.4	FMSI		"Master Batch Concept" - Company A
12.5	FMSI		"Segment Identification" - Company B
12.6	FR March 19, 1975	Manufacturer Identification Code	NHTSA Proposed Manufacturer Identification Code D-U-N-S Number, or Trademark Registered with the Patent Office, or Symbol consisting of Letter and/or numerals registered with NHTSA.

FMSI	Reference-Number	Test	Description
13.1	SAE J-661a	Chase Test	"Brake Lining Quality Control Test Procedure"
13.2	Regulation V-3	Chase Test	Vehicle Equipment Safety Commission Regulation V-3 "Minimum Requirements and Uniform Test Procedures for Motor Vehicle Brake Linings" (Adapted from J-661a)
13.3	GM R-60		"General Motors Engineering Staff R-60 Friction Test Procedure" (a 60 minute development and/or quality control test.)
13.4	Ford ES Test III-C	FAST Test	FAST Test (Friction Assessment Screening Test).
13.5	SAE Paper 670079	FAST Test	Anderson, Gratch, Hayes: "A New Friction and Wear Test for the Characterization of Brake Linings"
13.6	SAE Journal 7/68	FAST Test	Anderson, Gratch, Hayes, Gealer, Biggers: "New Test for Brake Lining Gives Reliable Friction and Wear Data"
13.7	SAE J-667	SAE Dynamometer Test	"Brake Test Code - Inertia Dynamometer"
13.8	SAE J-843d	SAE Passenger Car Test	"Brake System Road Test Code - Passenger Car and Light Duty Truck"
13.9	SAE J-786a	SAE Truck Test	"Brake System Road Test Code - Truck, Bus and Combination of Vehicles"
13.10	DOT 121	Air Brake Systems	Standard No. 121, Air Brake Systems (CFR 571.121)
13.11	DOT 105-75	Hydraulic Brake Systems	Standard No. 105-75, Hydraulic Systems (CFR 571.105-75)
13.12	SAE J-108a	SAE Motorcycle Test	"Brake System Road Test Code--Motorcycles"
13.13	SAE J-134a	SAE Passenger Car - Trailer Test	"Brake System Road Test Code--Passenger Car - Trailer Combinations"
13.14	SAE J-212	SAE Dynamometer Test	"Brake System Dynamometer Test Procedure--Passenger Car"

CHEMICAL TESTS

FMSI	Reference-Number	Test	Description
14.1	Ford ES Test III-D	PGC Test	PGC - Pyrolytic Gas Chromatography
14.2		PGC Test	Herron: "Pyrolysis of Phenol Formaldehyde Polycondensate", pp 475-498 in High Temperature Resistance and Thermal Degradation of the Polymers, S.C.I. Monograph No. 13, Mac Millan Company, New York, N.Y., 1961.
14.3	ASTM D-297	Acetone Extraction	"Chemical Analysis of Rubber Products - Acetone Extraction Section"
14.4	ASTM D-281-28	Oil Absorption	"Oil Absorption of Pigments by Spatula Rub-out"
14.5	ASTM D-494-46	Acetone Extraction	"Acetone Extraction of Phenolic, Molded or Laminated Products"
14.6	ASTM D-1259-61	Solids Contents	"Non Volatile Content of Resin Solutions"
14.7	ASTM D-1506-69	Ash Content	"Ash Content of Carbon Black"
14.8	ASTM D-1824-66	Resin Viscosity	"Apparent Viscosity of Plastisols and Organosols at low shear rates by Brookfield Viscometer"
14.9	ASTM D-2741-68	Gel Time	"Gel Time and Peak Exothermic Temperature of Reacting Thermosetting Plastic Compositions"

PHYSICAL TESTS

FMSI	Reference-Number		Description
15.1	SAE J-160	Swell	"Swell Growth and Dimensional Stability of Brake Linings"
15.2	SAE J-379a	Gogan	"Gogan Hardness of Brake Lining"
15.3	SAE J380	Specific Gravity	"Specific Gravity of Brake Lining"
15.4	ASTM D-790-63	Flex Test	"Flexural Properties of Plastics"
15.5	ASTM D-1921-63	Rotap	"Particle Size (Sieve Analysis) of Plastic Materials"
15.6	ASTM D-2947-71T	Rotap (Asbestos)	"Screen Analysis of Asbestos Fibers"

ATTACHMENT TESTS

FMSI	Reference-Number	Description
16.1	SAE J-840c	"Test Procedures for Brake Shoe and Lining Adhesives and Bonds"
16.2	ASTM D-1205-67	"Adhesives for Brake Lining and Other Friction Materials." (This is adapted from SAE J-840c)
16.3	Permafuse Corp.	S.J. Tilden, Jr.: "A Quality Control Program for Brake Shoe Bonders, using the SAE J-840 Axial Shear Test Fixture." (Copyright 1972, Permafuse Corp.)
16.4	APRA April 1971	S.J. Tilden, Jr.: "A Quality Control Program for Tomorrow Morning."
16.5	APRA September 1963	"Proposed Commerical Standard for Bonded Brake Shoes"
16.6	S.K. Wellman D-41990	"S.K. Wellman Button Shear Test"
16.7	B.F. Goodrich	B.F. Goodrich Friction Material Bonding Manual "Vise Test" and "Chisel Test"

SOLVENT TESTS

FMSI	Reference-Number		Description
17.1	ASTM D1133-61	Kauri-Butanol	Kauri-Butanol Value of Hydrocarbon Solvents
17.2	ASTM D233-65	Refractive Index	Sampling and Testing Turpentine
17.3	ASTM D850-69	Distillation	Distillation of Industrial Hydrocarbons and Related Materials
17.4	ASTM D891-59	Specific Gravity	Specific Gravity of Industrial Aromatic Hydrocarbons and Related Materials

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE 4, PARAMUS, N. J. 07652

BULLETIN

NO. 603

May 31, 1977

1977 AUTOMOTIVE DATA BOOK

The Printer, Tweddle Litho Company, has shipped most orders for the "1977 Automotive Data Book." Smaller orders and those for international destinations will be shipped shortly. Members orders were solicited in BULLETIN NO. 589 of January 18, 1977.

The basic catalog price of $374.40/M is the final price. Punching will be $11.50/M (as against $12.60/M estimated). While the catalog has 104 pages and we had estimated 112 pages, we received orders for only 66,000 copies versus our original estimate of 80,000 copies.

There appears to be a sizable overrun--in excess of 3,000. Should any members wish to order from the excess, all such copies are covered and punched and would be available at $385.90/M from the Institute Office.

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Regional Members

E. W. Drislane
Executive Director

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 0 2

May 17, 1977

REGIONAL MEMBERSHIP ACTIVITY

Don International Limited (Great Britain)

This is to advise the membership that we have received an application for Regional Membership from Don International Limited of Manchester, England.

Don International Limited indicated that they would intend to market brake linings, brake blocks and clutch facings in the United States using the copyrighted FMSI numbers. Their annual fee in that case would be $3,000. Don International Limited is a well known British Manufacturer of friction materials. They were known as Small & Parkes, Ltd. and had been marketing products under the Don name at one time. It would appear that they are qualified for membership in the Institute.

This application is now being reviewed by the Membership Committee who will make their recommendations to the Board of Directors. This bulletin is to advise the Membership of this application. No action is required of the Membership at this time.

Roulunds Fabriker (Denmark) and Mintex Federal (Canada)

We have been advised by both Roulunds Fabriker Ltd. (Odense, Denmark) and Mintex-Federal Ltd. (Rexdale, Ontario, Canada) that they will be terminating their Regional Membership as of June 30, 1977. We have maintained cordial relationships with both of these fine members and have expressed our regrets that we will be losing them.

E. W. Drislane
Executive Director

Active Members: List A

FRICTION MATERIALS STANDARDS INSTITUTE, INC., E-210 ROUTE #4, PARAMUS, N.J. 07652

B U L L E T I N

N O. 6 0 1

April 19, 1977

HISTORICAL SALES FIGURES--CORRECTION

Our Accountants have advised that a member has advised that they reported quantities incorrectly to the accountants for the full year 1976 (12 months to December 31, 1976). As a result of this error, the figures reported for Line 20--Brake Linings, and Line 40--Brake Blocks were incorrect.

The correct figures should be:

Line 20--Brake Linings: 139,749,839 (an increase)
Line 40--Brake Blocks: 14,428,467 (a decrease)

Please correct your reports for these historical sales figures accordingly.

E. W. Drislane
Executive Director

CC-Reporting Members
M. Granger, CPA

FRICTION MATERIALS STANDARDS INSTITUTE, INC., P-210 ROUTE #4, PARAMUS, N.J. 07652

BULLETIN

NO. 600

April 18, 1977

This is a supplement to the cross reference listing for brake shoes, the original listing being BULLETIN NO. 540 of July 28, 1975.

BENDIX

Part	FMSI No	Part	FMSI No	Part	FMSI No
321,591	314	2,238,147	D-89 (I)	3,204,378	316L
321,592	316	2,238,147	D-129 (I)	3,204,379	316R
1,153,211	D-119 (I)	2,238,148	D-89(I)	3,204,478	263
1,153,212	D-119 (O)	2,238,148	D-129 (I)	3,204,502	264
1,153,203	D-120	3,201,924	152	3,204,692	314L
2,230,362	D-129 (O)	3,202,576	263	3,204,693	314R
2,230,363	D-129 (O)	3,202,583	264		

CHEVROLET

Part	FMSI No	Part	FMSI No	Part	FMSI No
355,893	451	357,885	449	457,772	D-119 (O)
355,889	452	361,764	447	3,987,472	442
357,866	450	457,771	D-119 (I)		

CHRYSLER

Part	FMSI No	Part	FMSI No
3,638,329	D-123 (O)	3,880,633	445
3,638,331	D-123 (I)	3,880,634	446

DELCO-MORAINE

Part	FMSI No	Part	FMSI No	Part	FMSI No
2,621,184	D-122 (I)	5,472,307	D-122 (O)	18,001,568	462
2,623,691	D-121 (I)	8,000,176	448	18,001,617	462
2,623,696	D-121 (O)				

FORD

Part	FMSI No	Part	FMSI No	Part	FMSI No
C20A-2220-G	152	D3AA-2220-DB	264	D3AA-2220-EB	263

VOLKSWAGEN

Part	FMSI No
171-609-5373	454
331-609-537	453

WAGNER

Part	FMSI No	Part	FMSI No	Part	FMSI No
FE32,462	455	FE32,479	463	FE88,633	458