

AKEBONO

AKEBONO

Akebono Corporation

750 Lake Cook Road
Suite 375
Buffalo Grove, IL 60089Phone: 847-485-2877
Fax: 847-541-3348
E-mail: rsherman@akebono-usa.com**Fax**

To: Gil Laycock	From: Ron Sherman
Fax: (203) 452-7951	Date: 29 January 2001
Phone: (203) 452-1877	Pages: 2 including cover
Re:	CC:
☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle	

•Comments: Gil,

Could you please send us the line drawings for the attached list of FMSI numbers.

Thank you,

Ron Sherman

Bul #1 - sent 1/30/01

Bul #2 - ✓

#3 - ✓

#4 - ✓

#5 - ✓

mailed
2/1/01mailed
2/15/01

FMSI 12677

Subj: Akebono Delegate
Date: Thursday, February 10, 2000 1:33:27 PM
From: kselinge@akebono-usa.com
To: GNLFMSI@aol.com
cc: jwischhoff@akebono-usa.com

*Lori Add Akebono to Active
Member List - Roster
DEL & ALT Below
• Add to Machine List*

Hi Gil,
I apologize for taking so long to get back to you regarding your request for the above info.

K. SELINGER

Please proceed to list me as the Akebono Delegate, and list Jim Wischhoff as the Akebono Alternate.

Also, can you mail or fax me bulletin #1-991 and #2-991? (We already have #s 3 & 4 but are missing #s 1 & 2.) *✓ FAX OR MAIL*

Thank you for your help. Please let me know if you need anything else.

Best Regards,

Ken Selinger

Sr. Product Manager

Akebono Corporation

*Ph 847 541 4224
FAX 847 541 3348*

</XMP>

----- Headers -----

Return-Path: <kselinge@akebono-usa.com>

Received: from rly-zd02.mx.aol.com (rly-zd02.mail.aol.com [172.31.33.226]) by air-zd05.mail.aol.com (v67_b1.24) with ESMTP; Thu, 10 Feb 2000 12:33:27 -0500

Received: from akebono-nt-pd1.akebono-usa.com (mail.akebono-usa.com [209.176.97.98]) by rly-zd02.mx.aol.com (v67_b1.24) with ESMTP; Thu, 10 Feb 2000 12:33:23 -0500

A ~~XXXXXXXXXX~~

708 541 8224

3348

FRICITION MATERIALS STANDARDS INSTITUTE, INC.

588 MONROE TURNPIKE

MONROE, CT 06468

January 22, 1998

Mr. Jeff Mironcow
Akebono America, Inc.
750 West Lake Cook Road
Suite 375
Buffalo Grove, IL 60089

Dear Mr. Mironcow:

Regarding our phone conversation of 1/21/98, I checked back in our records and found that the Akebono Brake Industry Co., Ltd. Membership goes back to July 1967. The Membership is for a single category - clutch facings. It is listed as a Regional Membership. A Regional Membership is for a friction material manufacturer outside of the U.S. and Canada.

The classification for a friction material manufacturer located in the U.S. or Canada is Active Member. Complete eligibility requirements for membership are spelled out in our constitution.

For background, I am enclosing copies of the following:

Constitution and By-Laws
EXHIBIT A - Services to Members
Application for Membership Form - Active Member (2)
List of Institute Membership

ANNUAL FEE FORMULA

The annual fee is based on five categories in which the Member participates: (1) Disc Brake linings; (2) Drum brake linings; (3) Brake Blocks; (4) Clutch Facings; (5) Disc Plates or Drum Shoes. The fee is calculated with a basic charge of \$1,800, with an additional category charge of \$250 for each of the first two categories in which a member participates, with an additional category charge of \$500 for each of the next two categories. Essentially, this comes to:

One Category:	\$2,050/year
Two Categories:	2,300
Three Categories:	2,800
Four Categories:	3,300
Five Categories:	3,300

Mr. Mironcow
January 22, 1998
Page 2

COPYRIGHTS/TRADEMARKS

As noted in our EXHIBIT A write-up, the FMSI Numbers and Numbering Systems are protected by copyright, and FMS and FMSI are registered trademarks. Use of these part numbers and/or trademarks without benefit of Membership for friction material manufacturers or express written permission of the Institute for customers of Members, is a violation of our copyrights and infringes on our trademarks. We believe a central gathering point for product information has been good for our industry and a common numbering system is a benefit to all.

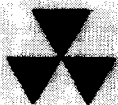
APPLICATION FOR MEMBERSHIP

If you were to apply for Active Membership, you should complete the "Application for Membership" Form enclosed. As regards the question on "financial strength", copies of financial statements, or bank references, or trade references such as domestic customers/suppliers would suffice. The application should be signed by a principal of the applicant - Officer, Sales Manager, or someone in similar capacity. The application should be accompanied by a prepayment of the first year's annual fee. Assuming the application were accepted, this deposit would be applied to the fee for 12 months from date of acceptance. It normally takes about 6 to 8 weeks to process the application for Active Membership. If the application were not accepted, the prepayment would be returned.

FRICITION MATERIALS STANDARDS INSTITUTE


G. N. Laycock
Executive Director

GNL:ld
Enclosures



AKEBONO AMERICA, INC.

750 LAKE COOK ROAD, SUITE 375 • BUFFALO GROVE, IL 60089
PHONE: (708) 541-4224 • FAX (708) 541-3348

September 18, 1995

Mr. Gilbert N. Laycock
Executive Director
Friction Materials Standards Institute, Inc.
588 Monroe Turnpike
Monroe, CT 06468

Dear Mr. Laycock:

After a five year stay in Chicago, now it is time for me to go back to Japan. I will be leaving Akebono America, Inc. on September 20, 1995 for a new assignment in OEM Sales Department of Akebono Brake Industry Co. Ltd. In Tokyo Head Office.

I would like to take this opportunity to express my sincere appreciation to you for all your support and generosity you have shown me over the years. I am pretty sure that Mr. Kenji "Kevin" Suzuki, my successor as the Marketing Manager will also find these qualities invaluable.

I wish the best of health, happiness and prosperity for you and now and in the future, and hope that our paths will cross again sometime in the near future.

Sincerely,

Hiroshi "Steve" Murakami
Manager, Marketing

Kiyoshi Mornoki



AKEBONO AMERICA, INC.

2040 S. CARBOY ROAD • MT. PROSPECT, ILLINOIS 60056
PHONE: (708) 364-2008 • FAX (708) 364-1975

March 21, 1994

Mr. Gilbert N. Laycock
Executive Director
Friction Materials Standards Institute, Inc.
588 Monroe Turnpike
Monroe, CT 06468

Dear Mr. Laycock:

With mixed feelings of both regret and excitement, I have to inform you that I am departing Chicago on March 26, 1994 for Tokyo to assume a new assignment at Akebono Japan.

It has been an exciting five years for both my business life and family life here in Chicago. We have had many successes with very little failure, which could have never been achieved without your great support.

I would like to take this opportunity to express my sincere appreciation for your kind support, courtesy and cooperation. Lives in this beautiful country will be clearly memorized forever.

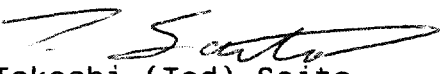
Upon my return to Japan, Mr. Hiroshi "Steve" Murakami will be my successor as Marketing Manager, assisted by Mr. Jim Wischhoff. I am sure that you will be extending the same support as you have given to me, so that our continuous friendship will be maintained for mutual prosperity in the future.

Once again thank you very much and I sincerely hope that we will be in contact with each other sometime in the future. In the meantime, please accept my warmest and best wishes for your health and continued success.

My new work address will be:

Automotive Sales Division
Akebono Brake Ind. Co. Ltd.
19-5 Nihonbashi, Koami-Cho
Chuo-ku, Tokyo, Japan 103
Tel (03) 3668-5181 Fax (03) 5695-7388

Sincerely yours,


Takeshi (Ted) Saito

FMSI 12683



AKEBONO AMERICA, INC.

750 LAKE COOK ROAD, SUITE 375 • BUFFALO GROVE, IL 60089
PHONE: (708) 541-4224 • FAX (708) 541-3348

March 31, 1995

FMSI
Mr. Gilbert N. Laycock
Executive Director
588 Monroe Turnpike
Monroe, CT 06468

Dear Mr. Laycock:

As of April 3, 1995, our current facility in Mt. Prospect, IL will be relocating as follows:

Akebono Remanufacturing Center
1 Quality Street
Munfordville, KY 42765

Tel (502) 524-4272
Fax (502) 524-3204

Akebono America, Inc. (Headquarters)
750 Lake Cook Road
Suite 375
Buffalo Grove, IL 60089

Tel (708) 541-4224
Fax (708) 541-3348

The Marketing Department will move to the Headquarters office on April 3, 1995.

We hope this move will not cause any short term delays, or inconveniences to any of our customers. The reason for this move is to prepare for our customers future caliper and friction material needs.

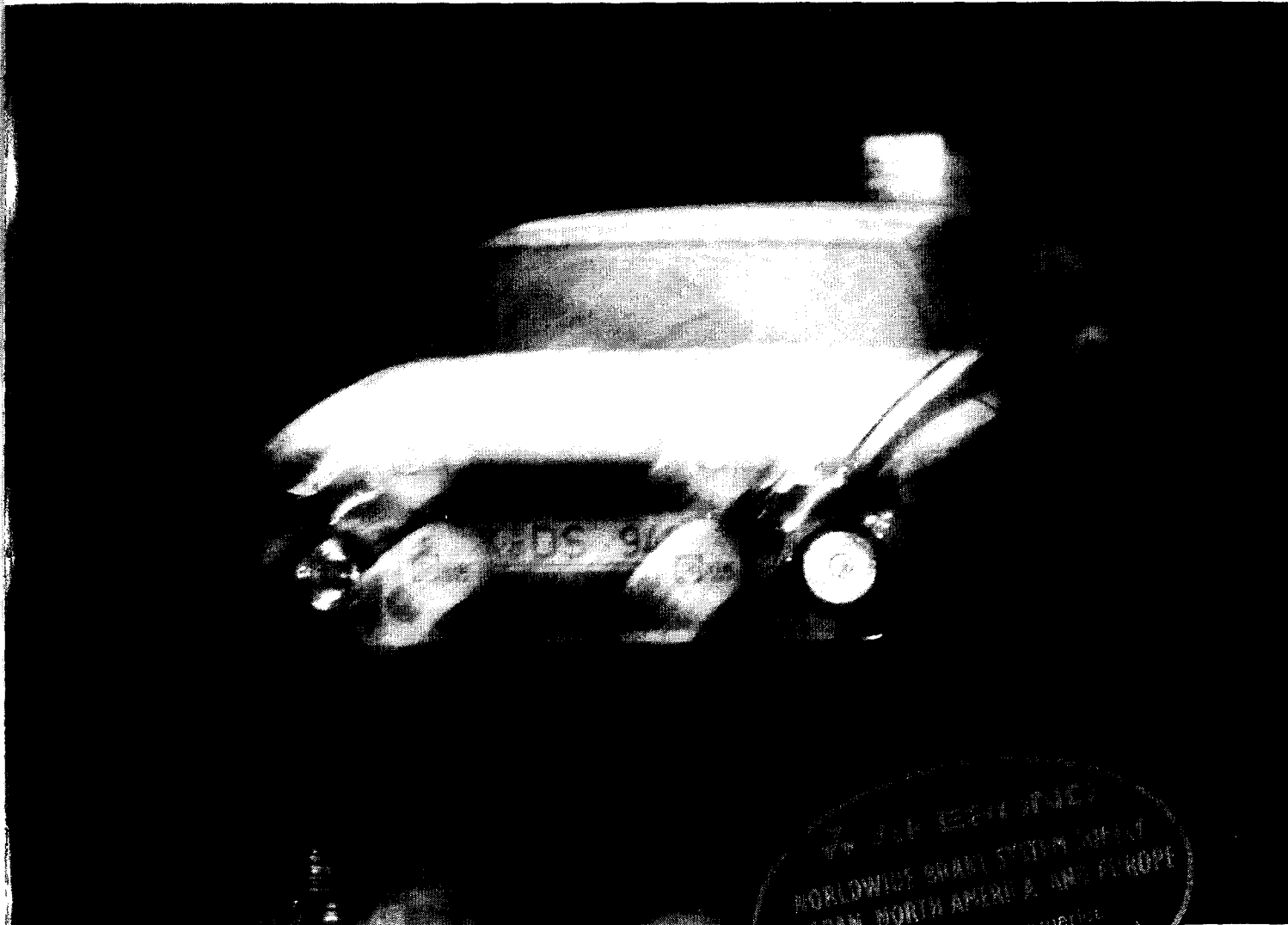
If you have any questions please contact us at anytime.

Thank you for your Cooperation

Akebono America, Inc.

FMSI 12684

AKEBONO BRAKING SYSTEMS



AKEBONO BRAKE INDUSTRY CO., LTD.

19-5, Nihonbashi Koamicho, Chuo-ku, Tokyo 103, Japan Tel. (03) 3668-5174 Fax. (03) 3662-1894 Telex. (03) 252-3661



AKEBONO EUROPE S. A. R. L.

144 AV. CHARLES DE GAULLE 92200 NEUILLY SUR SEINE FRANCE
Tel. 1-47-38-6850 Fax. 1-47-47-1801 Telex. 611350F



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE NORTHBROOK IL 60062 U.S.A.
Tel. (312) 498-1540 Fax. (312) 291-1536 Telex. 28-3518



AKEBONO BRAKE SYSTEMS ENGINEERING CENTER, INC.

26850 Haggerty Road Farmington Hills, MI 48331 U.S.A.
Tel. (313) 489-1250 Fax. (313) 489-1249



AMBRAKE CORPORATION

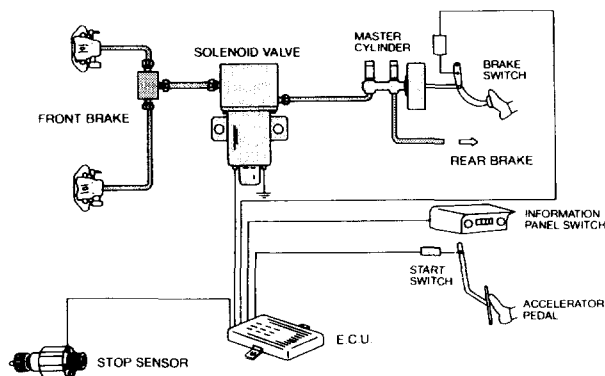
300 Ring Road, Elizabethtown, KY 42701 U.S.A.
Tel. (502) 737-4906 Fax. (502) 737-3044

AKEBONO PRODUCTS MEET HIGH SAFETY STANDARDS

Akebono believes that brakes should virtually have the ability to think. We are constantly working to develop "intelligent" brake systems incorporating advanced electronics. Some of the important new electronic technologies aiding our efforts and revolutionizing brake design include large-scale integrated circuits (LSI) and various types of new sensors.

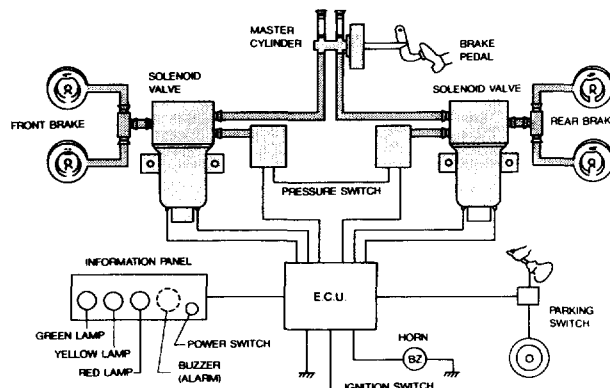
Akebono has long promoted the application of electronics in the field of brake systems, and has utilized a wide range of technologies in its effort to develop "intelligent" brake systems. These efforts are incorporated into the Anti-Lock System (ALS), Akebono Slide Stopper (AKSS), and Brake Lock System (BLS).

• AKEBONO SLIDE STOPPER (AKSS)



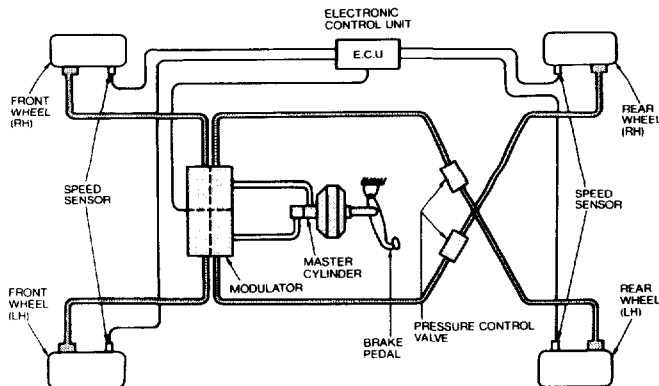
The AKSS is an electronic control system which prevents unintended movement when idling at stoplights and so on. For smooth acceleration and effortless idling, the brakes are held automatically after stopping until the accelerator is depressed.

• BRAKE LOCK SYSTEM (BLS)



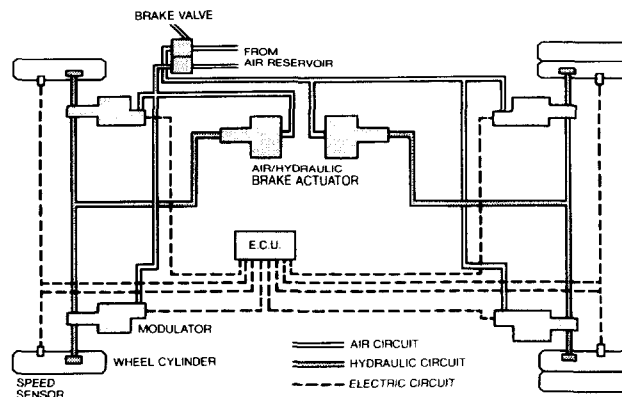
Electronic circuitry and a solenoid valve work in combination with the parking brake in order to provide stable 4 wheel braking for special use vehicles such as sanitation vehicles, concrete mixers and other service vehicles which perform utility duties while idling.

• ALS FOR PASSENGER CARS: FOUR-CHANNELS, FOUR-SENSORS & FOUR-WHEEL CONTROL SYSTEMS



The anti-lock brake system is a computer-modulated unit that prevents a vehicle's wheels from locking when braking on slippery surfaces such as wet roads or ice. Speed sensors inside the wheels detect the onset of brake-lock; in coordination with an electronic control unit and a brake modulator, the system regulates braking action to ensure smooth, controlled deceleration.

• FOUR WHEEL ABS FOR TRUCKS AND BUSES WITH AIR-OVER-HYDRAULIC BRAKE SYSTEMS

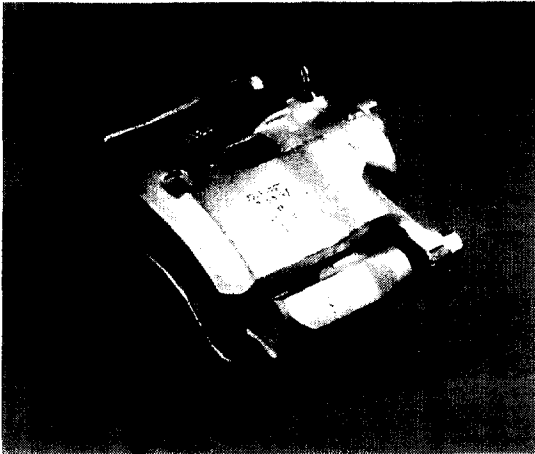


The anti-lock system applies not only to passenger cars with hydraulic brake systems but also to trucks and buses with air-over-hydraulic or full-air brake systems. This system shown is an example of the "add-on" 4-wheel ABS system jointly developed by Bosch and Akebono. This system is used on trucks and buses with air-over hydraulic brake systems

FOUNDATION BRAKES

• AD Disc Brakes:

Commonly used on small, lightweight and fuel-efficient vehicles, AD brakes are an original Akebono Brake product. They provide efficient, and reliable operation in a lightweight, and compact design, are easy to maintain, and are popular internationally for their low drag characteristics. Both front and rear types may contain parking mechanisms. Single and twin piston types are also available.



• Non-Servo Brakes:

Normally used on rear wheels in combination with disc brakes or two leading brakes, non-servo brakes feature an automatic adjustment mechanism for consistent clearance between drums and linings.

• Two Leading and Dual Two Leading Brakes:

The cylinder operates on only one side of the two leading brake, and on both sides of the dual two leading brake. Two leading brakes are generally used in the front, and dual two leading brakes in the rear.

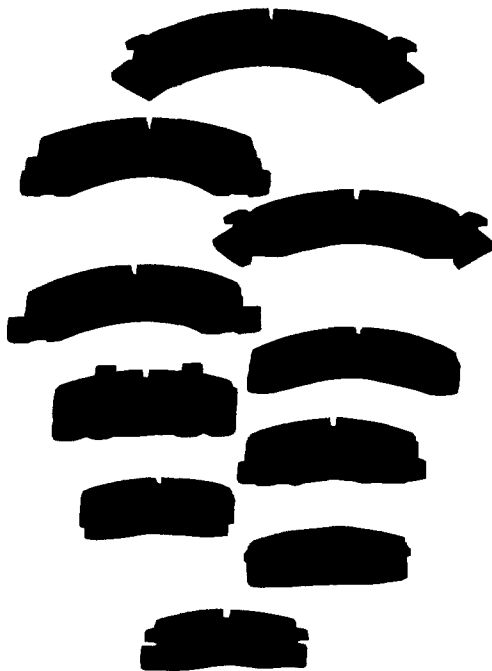
• Duo Servo Brakes:

Provide smooth braking with minimal effort. Clearance is automatically adjusted in correlation with the wearing of the lining for consistent pedal travel.

FRICITION MATERIALS

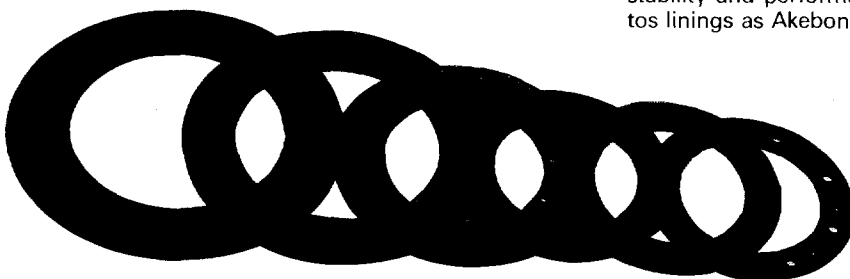
• Disc Pads

Non-Asbestos Disc Pads: Composed mainly of metallic fibers and organic fibers, non-asbestos pads have solved the problems of semimetallic types, such as heat and rust damage.



• Brake Linings

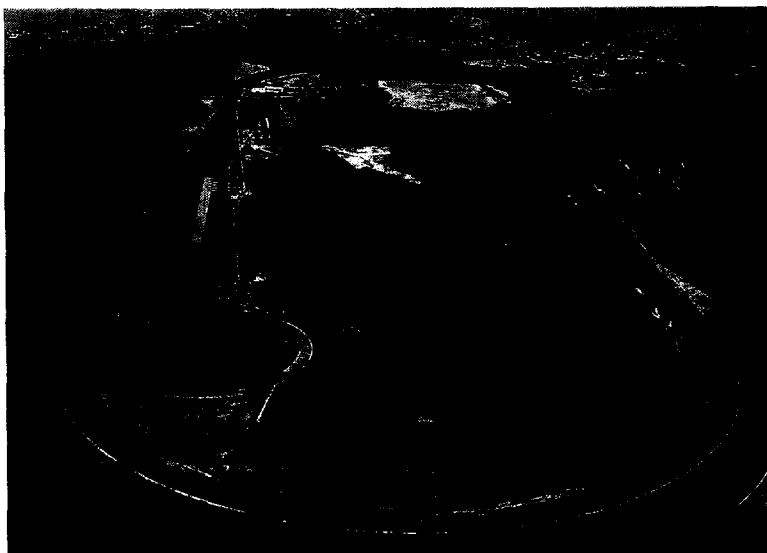
Non-Asbestos Linings: Composed mainly of fiberglass, steel and heat-resistant organic fibers, non-asbestos linings feature superior stability and performance. These linings will soon replace asbestos linings as Akebono's main friction material line.



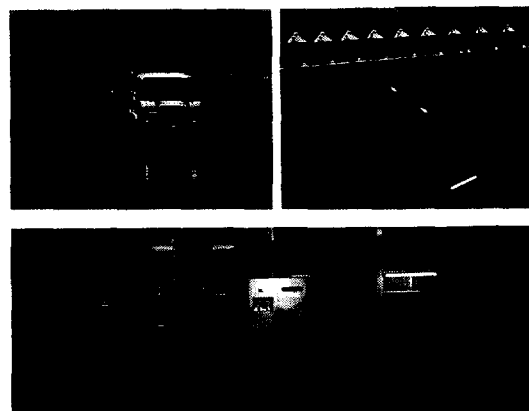
• Clutch Facings

Non-Asbestos Clutch Facings: Composed mainly of fiberglass, organic and metallic fibers, non-asbestos clutch facings are noted for their superior stability, burst strength and anti-judder characteristics.

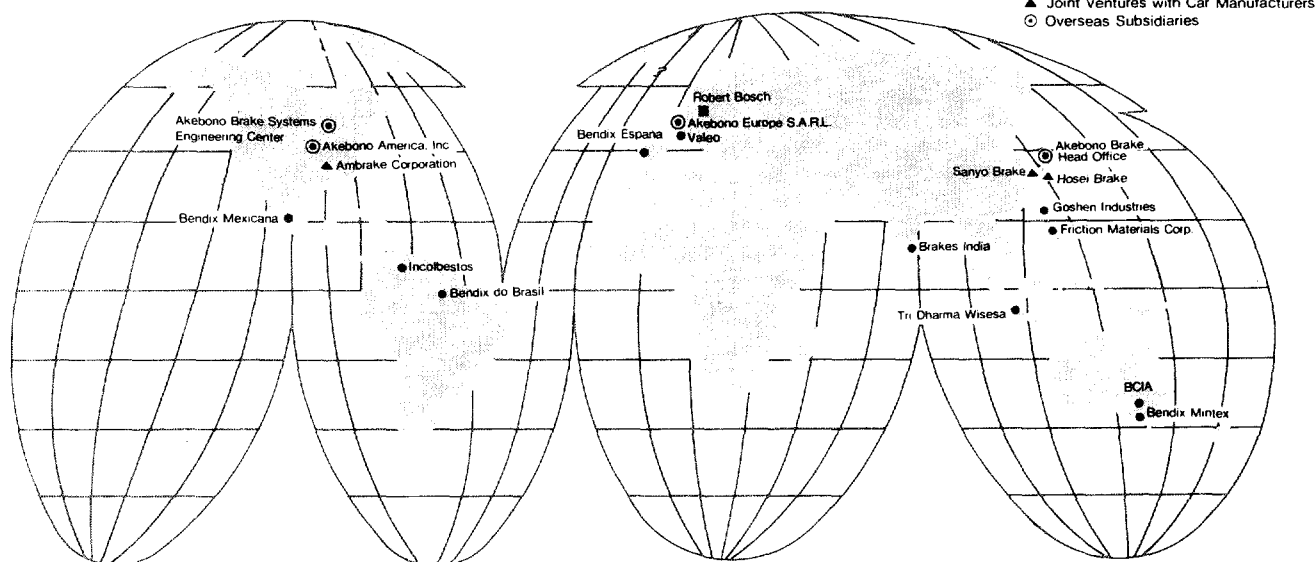
A DEDICATION TO SUPERIOR QUALITY



To maintain the high levels of quality which Akebono's customers have come to expect, numerous tests are performed by our Test Center and newly-established Brake Noise Test Center before a new technology reaches the product stage.



WORLDWIDE OPERATIONS



COMPANY PROFILE

- Established January, 1929
- Head Office Chuo-ku, Tokyo
- Plants in Japan Hanyu, Iwatsuki, Fukushima and Miharu
- Number of Employees 2,900
- Chairman Yasusada Nobumoto
- President Hisataka Nobumoto
- Capital ¥7,505 million (as of March 1990)
- Annual Sales ¥92,178 million (1990 business year)

MAIN PRODUCTS

- Disc Brake Assemblies
- Drum Brake Assemblies
- Brake Shoe Assemblies
- Brake Linings
- Clutch Facings
- Anti-Lock Systems
- Brake Lock Systems
- Akebono Slide Stoppers
- Pressure Control Valves
- Motorcycle Brakes
- Brakes for Industrial Machines and Rolling Stock



Brake
Systems
Engineering
Center





President : T. Ohzora

Recent advancements in transportation engineering have brought about profound developments in the world of automotive brakes. To ensure safe and enjoyable driving, every individual vehicle today requires brakes with special performance and reliability.

Akebono BSEC (Akebono Brake Systems Engineering Center, Inc.) was established in October, 1989 as the American Research and Development site for Akebono Brake Industry Co., Ltd. The aim of Akebono BSEC is to meet the needs of North American customers by providing the latest advancements in automotive braking systems.

For more than 60 years, Akebono Brake (Japan) has established a solid reputation in the technological development of brake systems, including brake components, friction materials, and entire system control units for anti-lock brake systems. We look forward to making contributions to the technologically advanced and intellectually diverse American market.

AMBRAKE Corporation in Kentucky (a joint venture between Akebono and General Motors), has already begun manufacturing and supplying automotive brakes to the North American market. Akebono BSEC seeks to contribute to AMBRAKE's overall research and development capabilities.

Acting in concert with Akebono Brake, we at BSEC believe that our advanced research and development skills will enable us to develop products which will surpass the expectations of vehicle manufacturers in North America.

自動車のブレーキには、信頼性は勿論のこと、車を運転するのが楽しくなるような、その車にマッチしたフィーリングが求められています。

AKEBONO BSEC (Brake Systems Engineering Center)は、曙ブレーキの北米におけるR&Dの拠点として、1989年10月に設立いたしました。そのねらいは、米国において、米国のニーズを敏感に感じとったブレーキシステムの迅速な開発を図ることにあります。

ブレーキ用摩擦材をはじめ、ブレーキコンポーネントから、アンチロックシステムなどのコントロールユニットまで、曙ブレーキが長年蓄積してきたブレーキシステムの開発技術力に、米国の技術と知恵が加わることにより、その成果は米国内に限らない大きなものとなるでしょう。すでに米国車用のブレーキ製品を AMBRAKE で生産しておりますが、AKEBONO BSECは、これら AMBRAKE 製品の研究開発に貢献するとともに、AKEBONO JAPAN との連携を密接にした研究開発を進めることにより、米国カーメーカの期待に十分にこたえられる製品開発ができるものと確信しております。



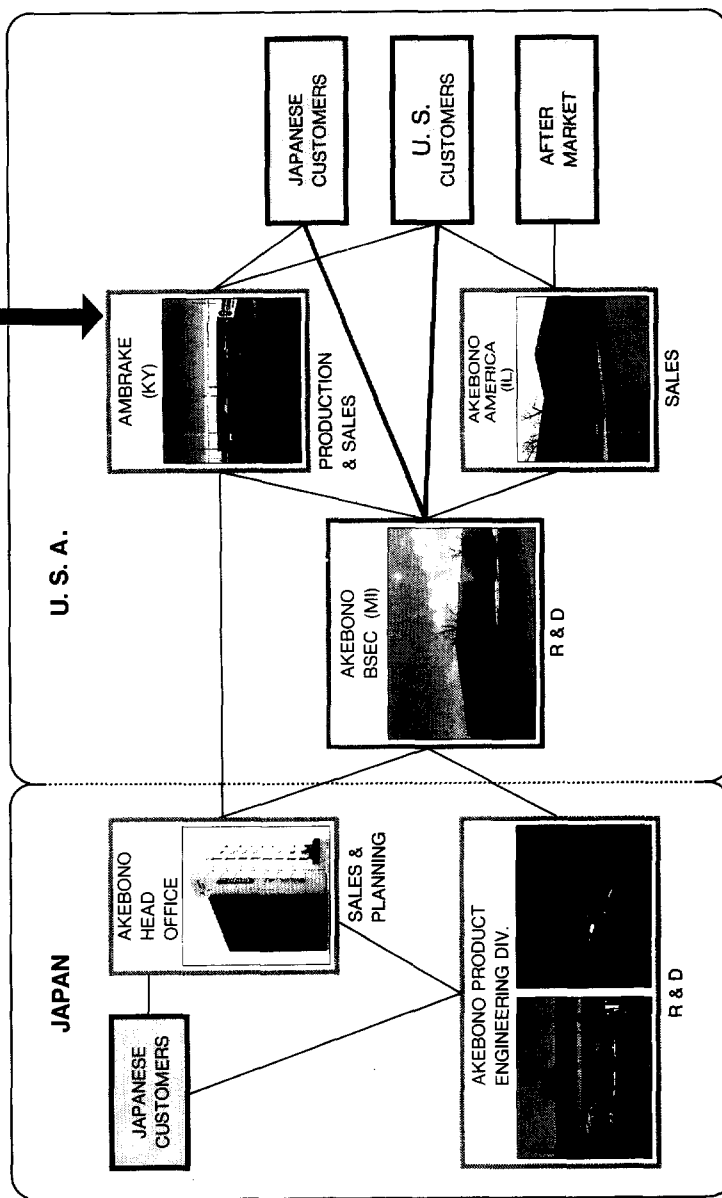
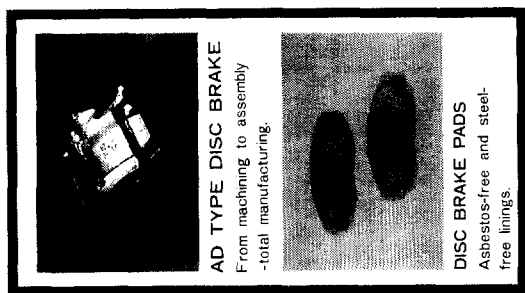
E.V.P. & General Manager:
Y. Ishigaki

FUNCTION OF BSEC

Akebono BSEC researches and develops brake systems for the North American market. Our advanced engineering capabilities allow us to develop high-quality products that satisfy all our customer needs.

Give Akebono BSEC a chance to help you develop or improve your products. You won't be disappointed with the results.

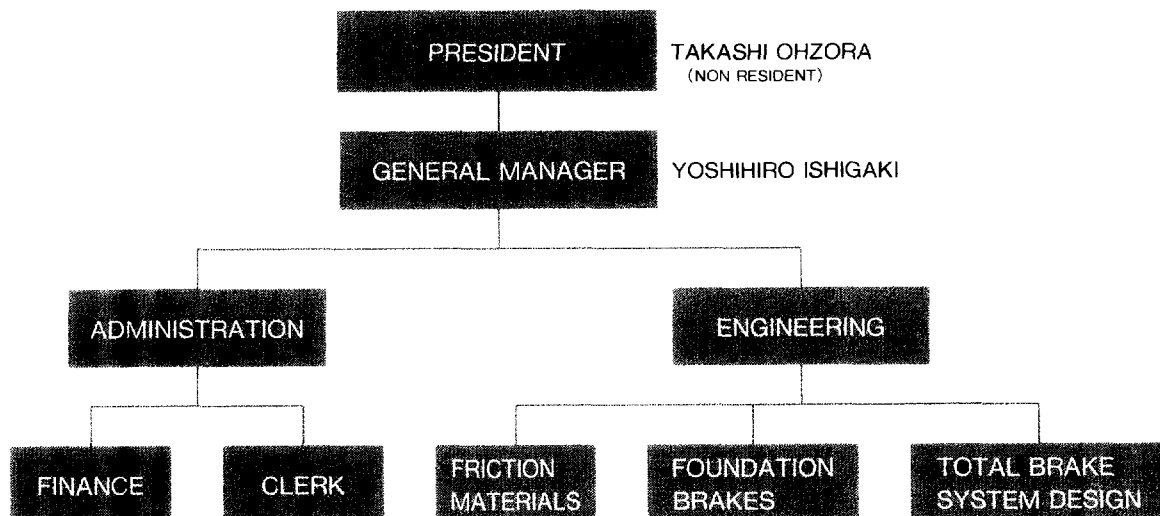
AKEBONO BSECは、米国のカーメーカーU.S.及びJapanese Customersに対するブレーキシステム製品の研究開発を行っています。日本で培ったブレーキシステムの開発技術を基盤にして、米国のニーズに合致した製品の迅速な開発ができます。ブレーキ製品の開発や技術的な課題への挑戦などはAKEBONO BSECが得意とする分野です。



BSEC EXPANSION PROGRAM

		ESTABLISHED IN OCT. '89	'90	'91	'92
ANALYSIS & EVALUATION				ANALYSIS & EVALUATION FOR FRICTION MATERIALS BENCH TEST FOR FOUNDATION BRAKES DYNAMOMETER TEST	
FRICTION MATERIALS	DISC BRAKE PADS		FORMULATION DESIGN	PROTOTYPE PRODUCTION	
	DRUM BRAKE LININGS			FORMULATION DESIGN & PROTOTYPE PRODUCTION	
FOUNDATION BRAKES	DISC BRAKES		ENGINEERING COORDINATION ASSEMBLY DESIGN PARTS DESIGN LOCAL PROTOTYPE MAKE		
	DRUM BRAKES		ENGINEERING COORDINATION ASSEMBLY DESIGN		
BRAKE SYSTEM			ENGINEERING COORDINATION		LOCAL DESIGN
TOTAL NUMBER OF BSEC EMPLOYEES		6	14	15	17

BSEC ORGANIZATION

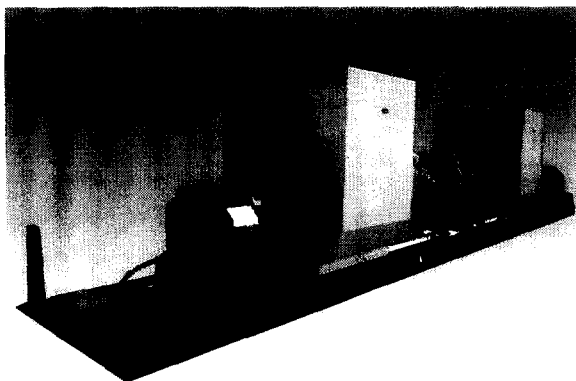


BSEC began developing asbestos-free and steel-free friction materials made from raw supplies produced in the United States. Some of these friction materials are currently under production at the AMBRAKE Corporation in Elizabethtown, Kentucky.

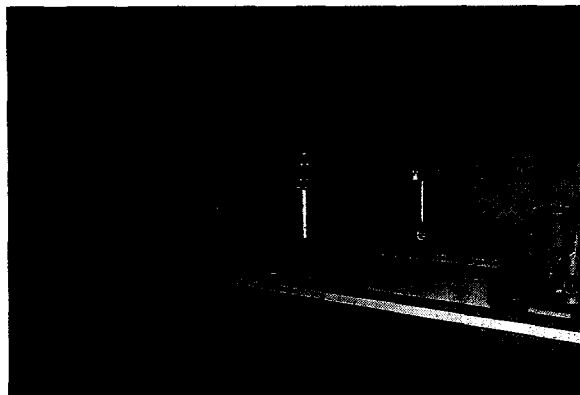
Our principal activities center around the design formulation and prototype preparation of friction materials. To achieve these goals, Akebono BSEC makes use of the latest technological advancements in analyzing and testing equipment.

Using CAD systems, Akebono BSEC manages all phases of product development, from the design of components and assembly systems for U.S. supplier materials, to entire prototype orders from factories.

For electronic braking systems, our development capabilities are progressing in cooperation with Akebono's Research and Development in Japan. In the near future, we plan to expand our facilities so that BSEC can soon develop entire braking systems from the conceptual stage to the final product.



DUAL DYNAMOMETER

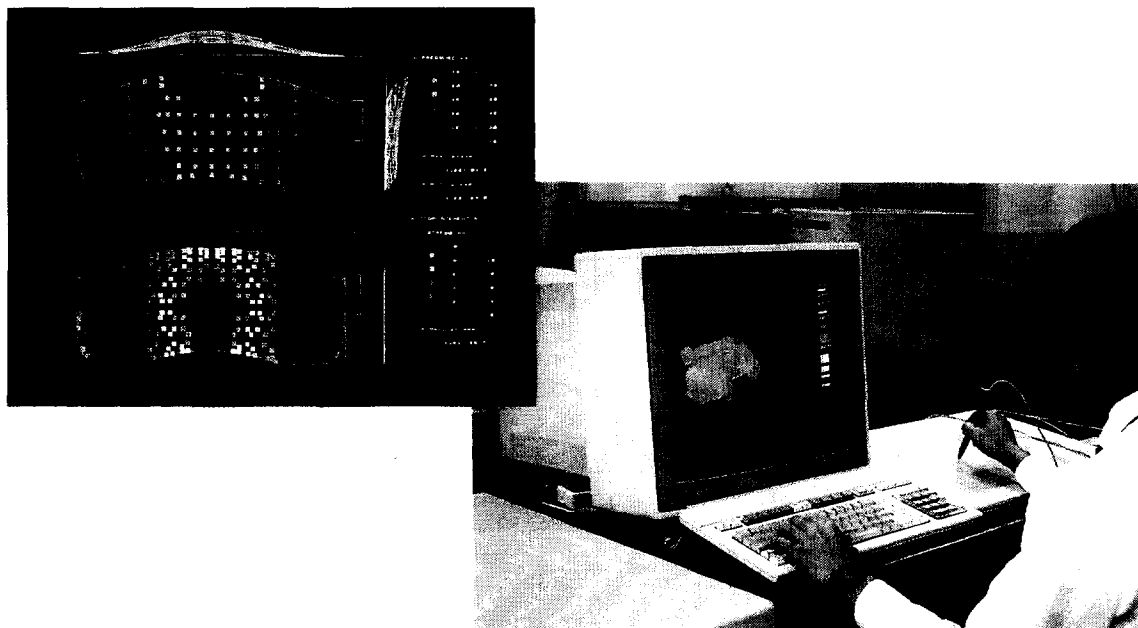


THERMAL ANALYZER

ブレーキ用摩擦材については、米国の原材料を使用したアスベストフリー摩擦材の開発をすすめており、すでにその一部は AMBRAKE で生産しております。最新の分析・評価機器を駆使した摩擦材の配合設計と試作品の供給は、我々が手掛ける第一の活動です。

ブレーキコンポーネントについては、CAD システムによるレイアウト検討から、米国の材料を使用した部品設計、そしてその試作品の製造まで全てを BSEC で行う計画です。

エレクトロニクス製品を含めたブレーキシステムについては、日本の R&D センタと共同して開発をおこないますが、これらブレーキシステムに関する全てのことも BSEC で対応できるよう、各種設備の充実を計画しております。



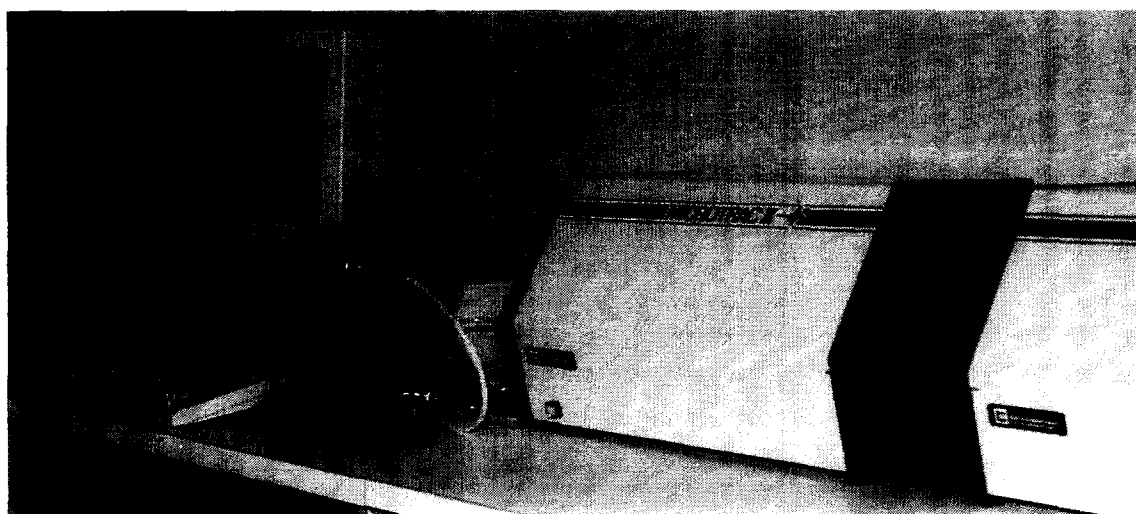
CAD SYSTEM

BSEC MAIN FACILITIES

1. CAD SYSTEM
2. TEST EQUIPMENT FOR BASIC BRAKE CHARACTERISTICS
3. BRAKE PARTS INSPECTION EQUIPMENT
4. FRICTION MATERIALS ANALYZING EQUIPMENT
5. DISC BRAKE PAD PROTOTYPE MANUFACTURING FACILITIES
6. DRUM BRAKE LINING PROTOTYPE MANUFACTURING FACILITIES
7. DUAL DYNAMOMETER
8. GARAGE

BSEC主要設備

1. CAD システム
2. ブレーキ基本特性試験装置
3. 部品検査測定機器
4. 摩擦材原材料分析機器
5. PAD 試作設備
6. LINING 試作設備
7. デュアルダイナモメータ
8. ガレージ

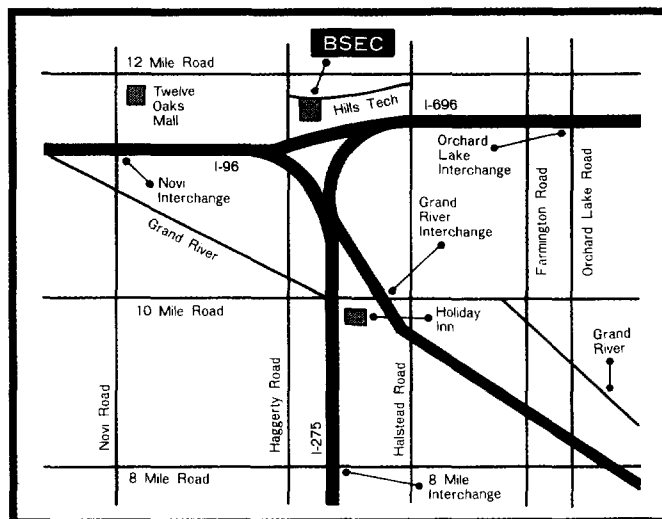


PARTICLE SIZE ANALYZER



Brake
Systems
Engineering
Center, Inc.

Address : 26850 Haggerty Road
Farmington Hills, MI 48331 U.S.A.
Tel:[313]489-1250 · Fax:[313]489-1249



**SOMETHING
SPECIAL IS
HAPPENING IN
ELIZABETHTOWN,
KENTUCKY**



AMBRAKE CORPORATION

Ambrake Is A Joint Venture Company Between General Motors, Delco Moraine, NDH And Akebono Brake - Japan

1. Company Name:	AMBRAKE CORPORATION		
2. Foundation:	July 28, 1986		
3. Authorized Capital:	31 Million Dollars		
4. Status of Share:	Shareholder Name	Shareholding Ratio	
	General Motors Co.	50%	
	Akebono Brake Industry Co., Ltd.	50%	
	Elizabethtown, Kentucky, U.S.A.		
5. Location:	First Year (1988)	88	
6. Number of Employees:	Fifth Year (1992)	450	
	At Present (Dec., 1990)	275	
7. Land Area:	55 Acres		
8. Facility:	285,000 sq. ft.		
9. Start of Production:	May, 1988		

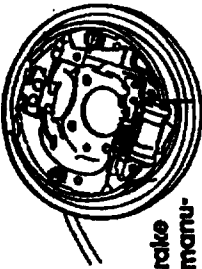
AMBRAKE PRODUCTS

*DISC BRAKE ASSEMBLY



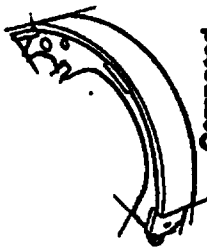
AD - Brakes,
commonly
used on small,
fuel-efficient
vehicles.

*DRUM BRAKE ASSEMBLY



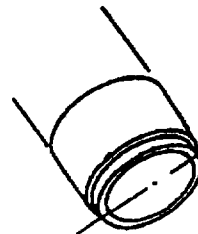
Ambrake
also manu-
factures very
effective, high-
stability Non-Servo
Drum Brakes.

*SHOE & LINING ASSEMBLY



Composed
chiefly of fiberglass,
steel and heat-
resistant fibers, our
non-asbestos
linings feature
superior stability
and performance.

*PISTON ASSEMBLY



Our forging piston
is of elaborate
for the function.

AMBRAKE IS A SPECIAL BLEND OF PRODUCTS, SYSTEMS AND PEOPLE

Our associates are
"generalists" rather
than "specialists."
Within the team,
associates have control over
their own set up, operation,
light maintenance and quality.
This "Whole Job" concept
helps our associates stay sharp
in all aspects of our operation,
which makes them an impor-
tant part of the organization.

*UNLINED SHOE ASSEMBLY



Our unique
brake shoe stamping
process is soaked to
fit into the Ambrake
Production System.

AMBRAKE

Business Plan

<u>Product</u>	<u>Quantity '91</u>	<u>Quantity '92</u>
Front Disc Brakes	180,000 PCS/MO	210,000 PCS/MO
Rear Disc Brakes	88,000 PCS/MO	88,000 PCS/MO
Drum Brakes	80,000 PCS/MO	143,000 PCS/MO
Unlined Brake Shoe	418,000 PCS/MO	418,000 PCS/MO
Piston	173,000 PCS/MO	225,000 PCS/MO
Pad	30,000 PCS/MO	587,000 PCS/MO

AMBRAKE OPERATION INCLUDES

- ASSEMBLY**
- MACHINING (CASTING STEEL)**
- STAMPING**
- WELDING**
- ZINC PLATING**
- ELECTROLESS NICKEL PLATING**
- CATIONIC ELECTRODEPOSITION**
- PHOSPHATING**
- FRICTION MATERIAL MANUFACTURING**

AMBRAKE CUSTOMERS

- HONDA OF AMERICA MFG., INC.
- TOYOTA MOTOR MFG. U.S.A., INC.
- TOYOTA MOTOR MFG. CANADA, INC.
- NEW UNITED MOTOR MFG., INC.
(TOYOTA & GM)
- NISSAN MOTOR MFG. CORPORATION U.S.A.
- DIAMOND STAR MOTORS
(MITSUBISHI & CHRYSLER)
- SUBARU ISUZU AUTOMOTIVE INC.
(SUBARU & ISUZU)
- GENERAL MOTORS TRUCK/BUS
- GENERAL MOTORS CADILLAC/BUICK
- SATURN CORPORATION
- INTAT PRECISION INC.

AN EXTRAORDINARY PARTNERSHIP MEETING THE NEEDS OF THE AUTOMOTIVE INDUSTRY

Two world leaders in the design and manufacture of automotive brake components, Akebono Brake Industry Co., Ltd. of Japan and the Delco Moraine Division of General Motors, have formed a unique partnership to produce technologically advanced, high quality, precision brakes. We specialize in small lot production with the same economies associated with high volume manufacturing.

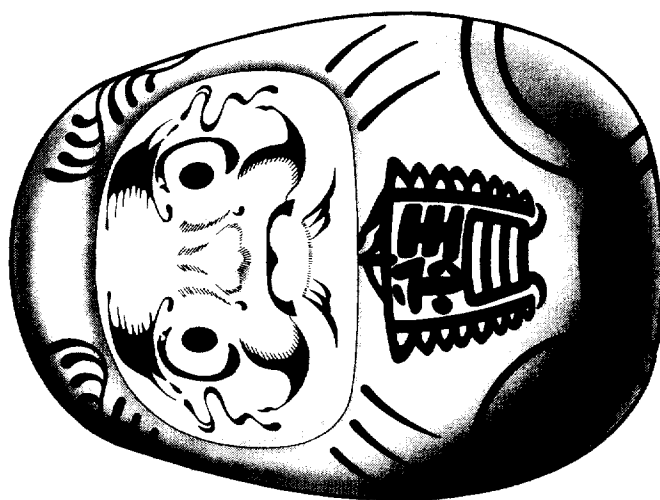
Our combined expertise developed from years of experience, plus state-of-the-art manufacturing equipment designed specifically for our operation, allows Ambrake to be more responsive to the changing needs of today's automotive industry.

AA AKEBONO BRAKE INDUSTRY CO., LTD.



*"Ambrake is positioned
to become a major force in
the brake industry."*

Chuck Nobumoto
Chairman
Ambrake Corporation



It is tradition in Japan to paint one eye on a Daruma Doll when you make a wish. The other eye is painted when the wish comes true, as a sign of gratitude and accomplishment.

On the day of our groundbreaking, November 21, 1986, we painted one eye on a Japanese Daruma Doll to symbolize the beginning of our extraordinary partnership. On May 2, 1988, Ambrake Corporation began shipping product to our customers. To signify this great accomplishment, we painted the other eye. The Daruma stands as a symbol of our past and present achievements and also serves to remind us that with teamwork and participation we can continue to "always make tomorrow better than today."

**WE'RE
PRODUCING
QUALITY
BRAKE
COMPONENTS
JUST IN
TIME**

The Ambrake
Production
System
(APS)

is designed to serve today's smaller "specialty" market. Rapid changeover capabilities allow us to be more responsive to our customers' needs by producing reliable precision brakes on a piece-by-piece basis. While it may take a mass production facility a month or more to retool and retrain, Ambrake can retool its transfer machining equipment in minutes. Just-in-time production gives Ambrake a competitive advantage whether we're manufacturing 1 or 100,000 brakes.





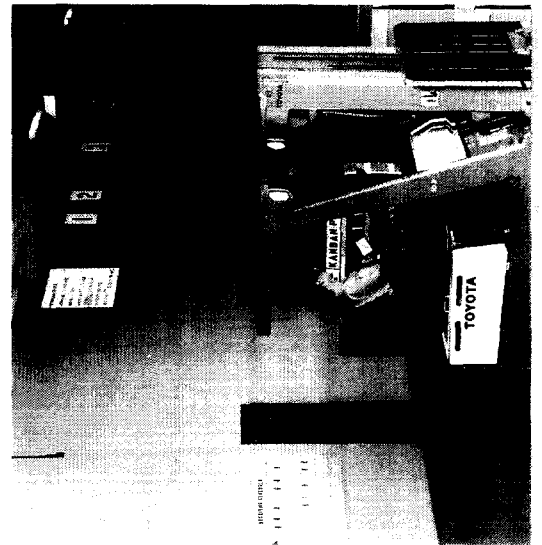
WE'VE CREATED AN ATMOSPHERE IN WHICH OUR ASSOCIATES WANT TO CONTRIBUTE

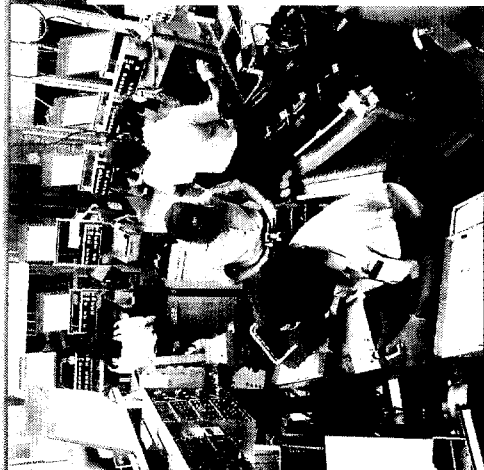
Implementation of APS is a never-ending process. We're always looking for new ideas and special talents to maintain our competitiveness. "Kaizen," the practice of "continuous improvement" through the ideas of our people, helps to eliminate waste in our process and our products. It also helps associates make their jobs safer and easier by eliminating anything that hinders their work. Together, we're working towards a goal of truly efficient work methods producing zero defects.

Our Ambrake Plant is scheduled through an innovative factory management system which rapidly communicates the needs of our customers to all areas of the Plant. We can visually determine the exact status of an order in each phase of the process. This allows us to maintain tight control of our productivity and inventory.

Ambrake's manufacturing philosophy is based on flexibility, teamwork and continuous improvement through the ideas and efforts of our people. We believe that associate involvement is essential to our success.

To encourage total involvement, we've implemented a Participative Management style based on mutual respect, fairness, trust and dignity. The result is an "open" atmosphere that makes our associates want to contribute. Ambrake's team members work closely together to achieve a common goal of excellence.





The Ambrake Plant layout is designed to provide maximum efficiency and productivity of our operation. A highly trained team works with the most advanced equipment available. The process, from precision machining to electroplate coating to final assembly, takes place within a Work Cell.

Participation in group activities such as Ambrake Quality Circles helps to keep our associates informed and involved. Special task forces are formed to exchange ideas, resolve concerns, review plant and area performance, plant safety, production and anything that affects the group.



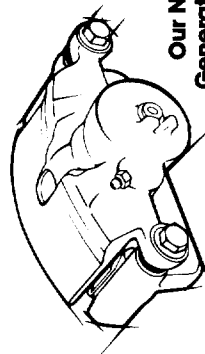
Body, Support
and Piston
precision

Eligible
Zinc
for su
prote
-again
corro

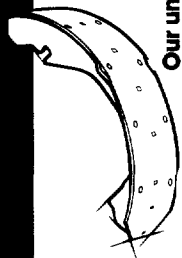
Compliance
sealing
pin
oscent
risk
for
mainline

AMBRAKE IS A SPECIAL BLEND OF PRODUCTS, SYSTEMS AND PEOPLE

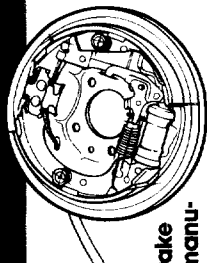
Our associates are "generalists" rather than "specialists." Within the team, associates have control over their own set up, operation, light maintenance and quality. This "Whole Job" concept helps our associates stay sharp in all aspects of our operation, which makes them an important part of the organization.



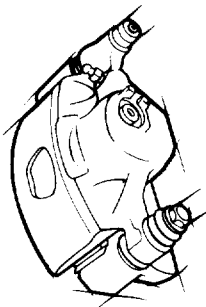
Our New Generation of disc brakes, AD Gil, are designed so the weight is centered for better stability and more even wear.



Our unique brake shoe stamping process is scaled to fit into the Ambrake Production System. It is compact, highly flexible, and more effective than traditional high-speed stamping lines.



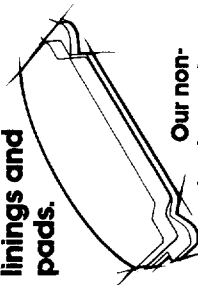
Ambrake also manufactures very effective, high-stability Non-Servo Drum Brakes.



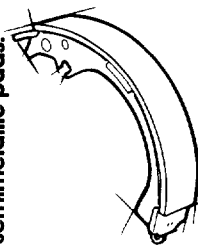
AD Gil Brakes, commonly used on small, fuel-efficient vehicles, provide reliable operation in a lightweight, compact design, often chosen for their low drag characteristics.



Ambrake supplies only Non-Asbestos brake linings and pads.



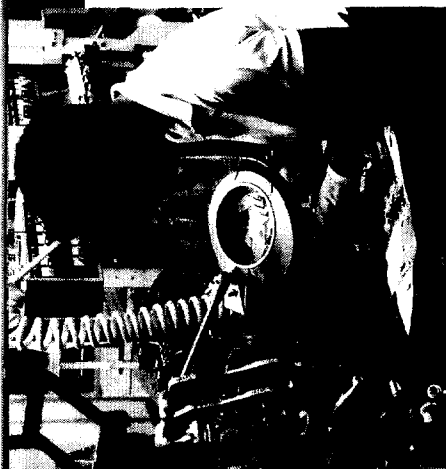
Our non-asbestos pads, made primarily with metallic fibers and non-organic fibers, have solved heat damage and rusting problems often associated with semimetallic pads.



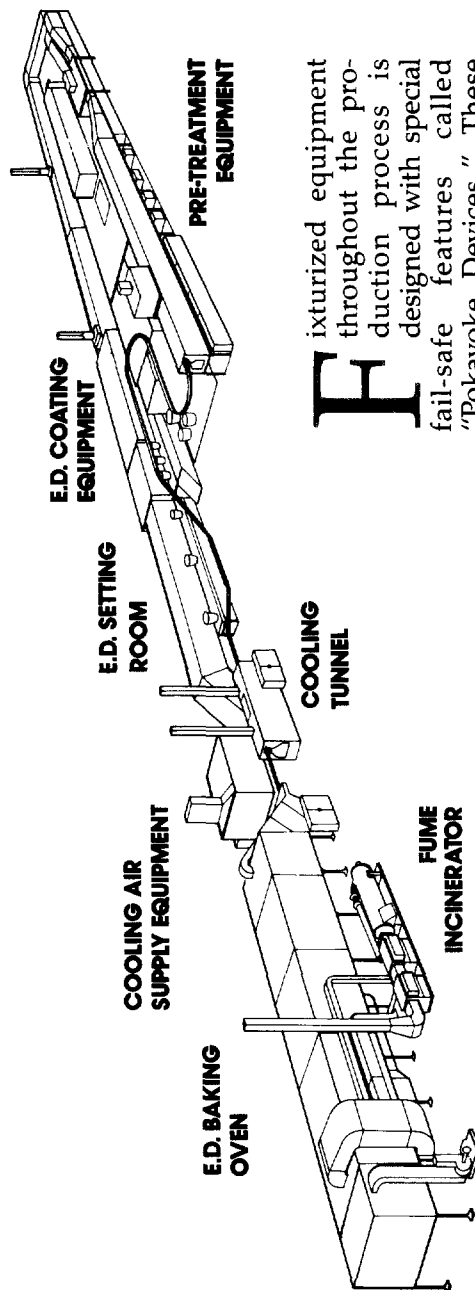
Composed chiefly of fiberglass, steel and heat-resistant fibers, our non-asbestos linings feature superior stability and performance.

UNMATCHED QUALITY ASSURANCE REQUIRES MORE THAN A FEW GOOD BRAKES

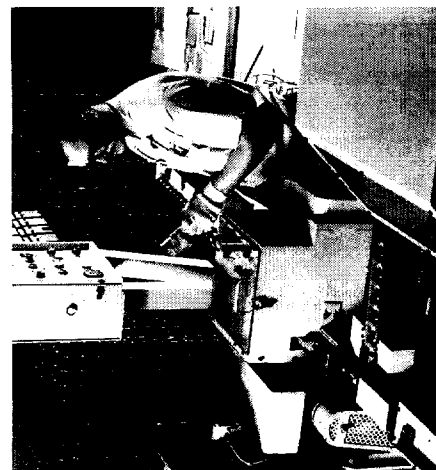
Hundreds of thousands of tests are performed before a new technology reaches the "product" stage. Ambrake continues to test strength, durability and performance throughout all phases of production. Our Quality Assurance includes a Metallurgical Analysis Lab, Dynamometer, Coordinate Measuring Machine and over 50 high-tech machines designed to test specific characteristics.



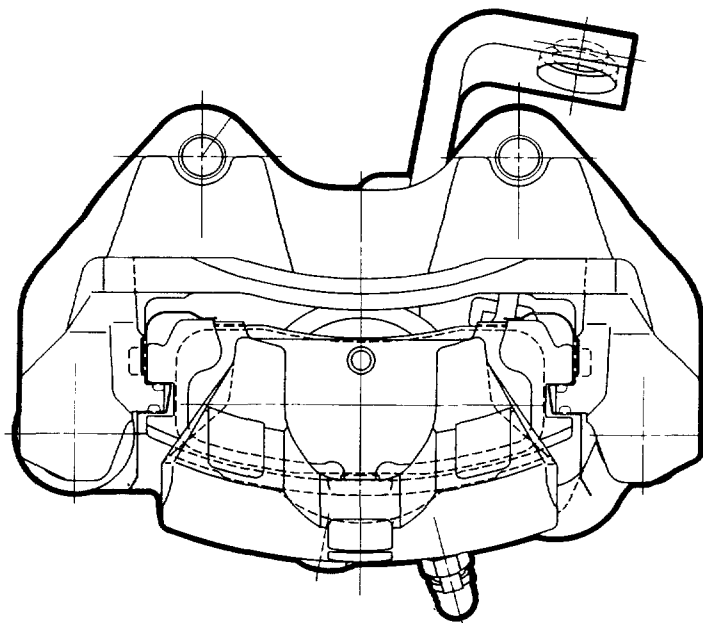
Every single piece is handled and visually inspected by a trained associate during each stage of machining and assembly.



Fixturized equipment throughout the production process is designed with special fail-safe features called "Pokayoke Devices." These devices prevent problems before they happen and help our associates work towards our goal of "zero defects."



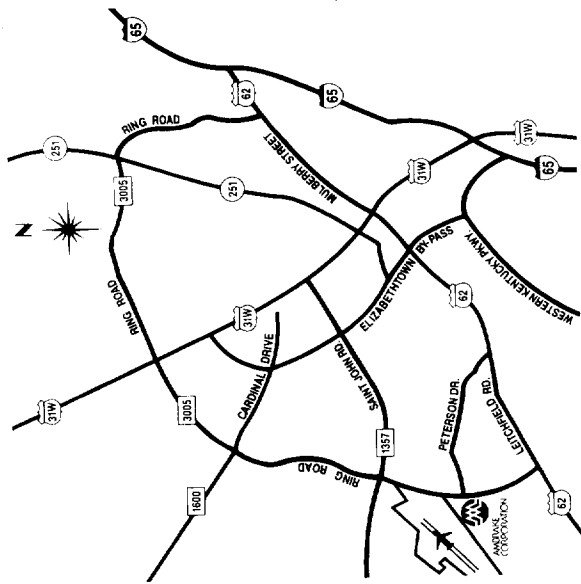
Ambrake capabilities include a highly efficient Electro Deposition Painter which will ensure a consistent, high quality surface finish on brake components for superior corrosion resistance.



**SPECIAL
CAPABILITIES
MAKE US
MORE THAN
JUST A
SUPPLIER**

Ambrake meets the challenge of design and engineering by providing creative applications of technical expertise to solve specific problems, meet

determined objectives and fulfill individual requirements. We can also provide systems engineering and prototype development. The earlier you involve us, the more we can do for you.



**SERVING
THE WORLD
FROM OUR
PLANT IN
CENTRAL
KENTUCKY**

Ambrake Corporation is located in Elizabethtown, Kentucky, just minutes southwest of Louisville. This central location allows us to easily serve customers across the United States as well as worldwide.

Ambrake will employ 500 associates at full capacity in this thoroughly modern 272,000 square foot plant.

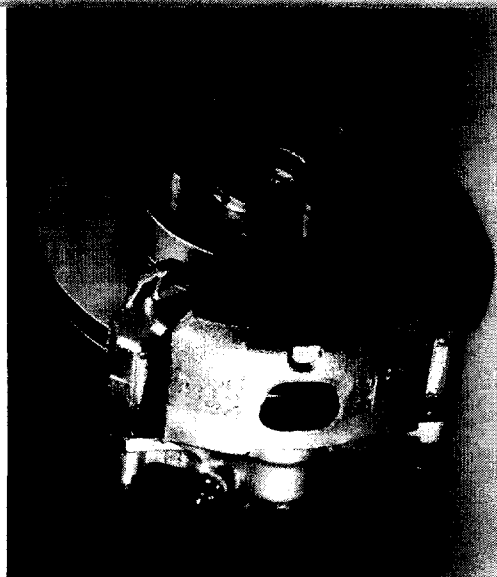
*"Together...
let's always
make
tomorrow
better than
today."*



**AMBRAKE
IS YOUR
BRAKE
SYSTEMS
PARTNER**

We're willing to work very hard for our customers because we know our skill, integrity and dedication will be rewarded with a safe, reliable brake product and a satisfied partner. Ambrake quality is built in with piece-to-piece consistency for brakes you can depend on...every time.

Our goal is not only to realize a profit from the manufacture and sale of automotive brake components, but also to contribute to the well-being of our people, our customers, our shareholders and our community. These are the people



we refer to in our motto, "Together...let's always make tomorrow better than today."

Come see us and you'll agree. There really is something special happening in Elizabethtown, Kentucky.



300 RING ROAD
ELIZABETHTOWN, KY 42701
U.S.A.

1-502-737-4906 TELEPHONE
1-502-737-3044 FAX



FRICION MATERIALS STANDARDS INSTITUTE, INC.

588 MONROE TURNPIKE
MONROE, CT 06468

November 1, 1991

Mr. Ted Saito
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Gentlemen:

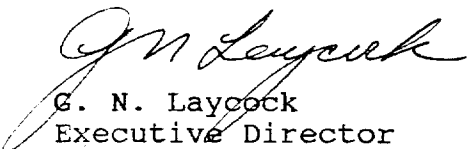
Enclosed please find copies of invoices which are over 6 months old. Perhaps they have been overlooked.

We would appreciate payment of these old invoices. Would you please check with your accounts Payable Department to see when payment will be made.

Thank you.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE



G. N. Laycock
Executive Director

GNL:ld
Enclosures

FRICITION MATERIALS STANDARDS INSTITUTE, INC.

588 MONROE TURNPIKE
MONROE, CT 06468

December 17, 1990

Mr. Takeshl "Ted" Saito
Akebono American Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Ted Saito:

The Institute is asking for your help concerning Clutch Facing Information. This letter is being sent to all Members who deal with clutch facings.

During my tenure with the Institute (slightly less than 2 years), the Institute has made over 100 disc brake lining and shoe assignments, over thirty drum brake lining and shoe assignments and one (1) clutch facing assignment. In all instances the information which generated the assignments was submitted by Members.

We have reviewed the specifications which we received from MVMA for Ford and Mercury passenger cars over the past three years and have partial information on some clutch facings but not enough information to make an assignment.

- 1989-90 Taurus SHO - Clutch manufacturer Valeo
OE facing is steel backed made by Valeo
Size: 235 x 155 x 3.35 16 holes
- 1991 Taurus SHO - Industry Articles say there is a new clutch for 1991 but have no information on it.
- 1989-91 Thunderbird Super Coupe - Clutch manufacture LUK
OE facing is made by Valeo F202 material
Size: 280 x 198 x 3.45 16 holes
- 1989 Probe GT
1990-91 Probe LX & GT - Clutch manufacturer Daikin
OE facing is Valeo - "semi-mold"
Size: 240 x 160 x 3.5 32 holes

Mr. Ted Saito
December 17, 1990
Page 2

1991 Escort LX (probably Mazda also)
1991 Tracer (all except LTS) - Clutch manufacturer Daikin
OE facing is made by Nihon Valqua - molded material
Size: 200 x 130 x 3.8 (pressure plate side) 16 holes
200 x 130 x 3.5 (fly wheel side) 16 holes

1991 Escort GT
1991 Tracer LTS - Clutch manufacturer Daikin
OE facing is made by Nihon Valqua - molded material
Size: 215 x 150 x 3.8 (pressure plate side) 16 holes
215 x 150 x 3.5 (fly wheel side) 16 holes

1991 Capri 1.6L - Clutch manufacturer Daikin
OE facing is made by Valqua - "semi-mold" material
Size: 200 x 132 x 3.5 16 holes

1991 Capri 1.6L Turbo - Clutch manufacturer Daikin
OE facing is made by Valqua - "semi-mold" material
Size: 225 x 160 x 3.5 (pressure plate side) 16 holes
225 x 160 x 4.1 (fly wheel side) 16 holes

The information from MVMA listings above along with hole specifications and locations could be used to generate an FMSI assignment. We would prefer a drawing or sketch showing OD, ID, thickness, hole size and location. The above missing information is for Ford passenger cars only. We will be reviewing General Motors and Chrysler information when it is received.

Another area that the Institute receives almost no information is Imports and these make up almost 30% of the U.S. vehicle sales. The Institute desperately needs your assistance to obtain information in this area. Many of you may be making and distributing certain applications using your own p/n designation. An FMSI assignment of a part number will give the part nation wide (in fact world wide) distribution.

Again the Institute is asking for your participation, support and help with clutch facing information. Thank you.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE


G. N. Laycock
Executive Director

GNL:ld

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

588 MONROE TURNPIKE
MONROE, CT 06468

July 23, 1990

Mr. Takeshi Saito
Akebono America
3168 Doolittle Drive
Northbrook, IL 60062

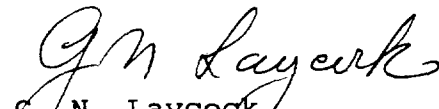
Dear Ted:

Please refer to the enclosed copy of check which we received from you. Please note that it was sent to our old address in New Jersey. The office moved last November and we have sent several address change notices. Shortly the Post Office in New Jersey will stop forwarding the mail to us.

Would you please see that the person in charge of your Accounts Payable changes our address on their computer files. Thank you.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE


G. N. Laycock
Executive Director

GNL:ld
Enclosure

AKEBONO AMERICA, INC.

11572

OUR REF NUMBER	YOUR INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
006772	6193		462.50	462.50	0.00	462.50

AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE
NORTHBROOK, IL 60062

THE CHICAGO-TOKYO BANK
40 N. DEARBORN ST. CHICAGO, IL 60602

2-110
710

11572

CHECK DATE	CONTROL NUMBER	CHECK AMOUNT
07/13/90	011572	\$*****462.50

PAY Four Hundred Sixty-Two and 50/100 dollars

TO THE
ORDER

OF
FRICITION MATERIALS STD. INST.
E-210 ROUTE 4
PARAMUS
NJ 07652

AKEBONO AMERICA, INC.

R. Zubuaga
AUTHORIZED SIGNATURE

⑈011572⑈ ⑆071001106⑆ 010 200⑈ 5084

FMSI 12718

FRICION MATERIALS STANDARDS INSTITUTE, INC.

505 HONOLULU TRWAPKA
MAYNARD, CT 06458

May 1, 1990

Mr. Ted Saito
Akebono America, Inc.
3168 Doolittle Drive
North Brook, IL 60062

Dear Mr. Saito:

It was a pleasure meeting you at the APRA Brake Systems Meeting in Atlanta. As noted during the meeting the support of the Membership is essential for the Institute to do the best possible job. If there are parts which Akebono can supply to the U.S. Aftermarket and do not have FMSI part numbers, we will be happy to assign part numbers if you can provide a drawing and application information. This information would be of benefit to both Akebono and FMSI.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE


G. N. Laycock
Executive Director

GNL:ld

TELEPHONE (203) 452-1877
FAX (203) 452-7951

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

588 MONROE TURNPIKE
MONROE, CT 06468

FAX - FAX - FAX

To: Mr. T. Saito - Akebono America, Inc
From: G.N. Laycock
Date: 1/17/90
Number of pages : 1 (Including cover)

Message:

Re: Your fax

Item 1. Cannot find a match for any of the three facing sizes listed

I am sending you a copy of 1985 Clutch Facing Catalog 851
along with an update for all facings assigned since the
catalog was published. This should be helpful to you
for the type of question above.

Item 2. I will try to get sales history 1980-1984 for you.

G.N. Laycock



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: ~~312~~ 498-1540 • TELEX: 28-3518 • FAX ~~312~~ 291-1536
708 708

DATE : January 17, 1990 FAX NO. : D90A034
TO : Mr. G. N. Laycock
FMSI
FROM : T. Saito
SUBJECT : Request for confirmation FMSI #
CC :

Dear Mr. Laycock:

1. We would appreciate if you would inform us FMSI # which applies to each size clutch facing as follows:
-1. 219 X 156 X 3.6
-2. 170 X 110 X 3.5
-3. 200 X 135 X 3.5
2. We would appreciate it if you would send us the sales history of friction materials of 1980 - 1984.
It would be good enough for us to get only the final issue of each year. We don't need the quarterly basis.

If you have any questions, please ask us anytime.

Best regards,

Ted Saito
Sales Manager, Service Parts

219 8.622 11/10	156 6.142 21/10	3.6 .1412 3.5	No
170 6.693 11/10	110 4.321 21/10	.138 3.5	No
200 7.874 21/10	135 5.315 5/10	.138 3.5	No



AKEBONO AMERICA, INC.

April 18, 1995

FMSI

688 Monroe Tpke.

Monroe, CT 06468

To whom it may concern:

I would like to inform you that we have moved.

Our new address is as follows:

Akebono America, Inc.

750 Lake Cook Road

Suite 375

Buffalo Grove, IL 60089

(708) 541-4224

Please note that all correspondence should be addressed to Mr. Kiyoshi Momoki. Mr. T. Kashiwagi was returned to Japan 3 years ago.

Please update your records.

FMSI 12722

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

August 18, 1989

file
Akebono America, Inc.
Attn: Mr. Ted Saito
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Saito:

Per your request attached please find a Cross Index from FMS Number to original equipment set, assembly or kit number for the following FMS shoe numbers; 560, 561, 574, 596 and 600 through S618.

We hope that this is the information for which you were looking.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

G. N. Laycock
Executive Director

GNL/dr
Enc.

SHOE NUMBER

OE. SET OR KIT NUMBER

560

MB 366143

MITSUBISHI

561

94133689 (2), 94133690 (1), 94133691 (1)

GM

574

44060-08G25

NISSAN

596

MB 520456 (2), MB 520454 (1), MB 520455

MITSUBISHI

600

53202-83300 (2), 53201-83300

SUZUKI

601

04495-12100

TOYOTA

602

41030-Z5060

NISSAN

603

41030-Z5019

NISSAN

604

44060-Z5065

NISSAN

605

9605 8759

GM

606

9433 9859

GM

607

44060-56L27

NISSAN

608

9606 0651

GM

609

LAY-126-38ZA

MAZDA

610

MB 618189 (2), MB 618190 (1), MB 618191 (1)

MITSUBISHI

S 611

04495-30040

TOYOTA

S 612

9404 9962

GM

S 613

9404 2177

GM

S 614

44060-90171

NISSAN

S 615

9405 0862

GM

S 616

9405 0863

GM

S 617

41039-0415

NISSAN

S 618

E95Z-2200A

FORD

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

August 9, 1988

Mr. T. Kashiwagi
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Kashiwagi:

We have examined lined shoe assemblies and loose drilled linings which are used on certain International Truck models. These trucks are manufactured by Nissan in Japan and use Akebono brake shoes and linings.

We are particularly concerned about measurements for locating the rivet holes along the inside radius of the lining (the outside radius of the shoe table). The parts in question are:

Tentative FMSI No.	Nominal Size	Nissan Number		International Application
		Lining	Shoe Assembly	
1410	320 x 110	41039-Z5071	41030-Z5060	88-87 400 Series frts
1411	370 x 100	41039-Z5068	41030-Z5019	88-87 500 Series frts
1412	370 x 135	44066-Z5072	44060-Z5065	88-87 500 Series rears
?	400 x 154	?	44060-90171	87-86 700 Series rears

I have enclosed copies of our tentative drawings for these linings. Could you verify the correct inside radius for the linings (outside radius for shoe table) and the degrees spacing.

We would most appreciate your help with these assignments. Would you please mark up our prints with the correct inside radius and degrees spacing for the rivet holes. Thank you.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/dr
Enc.



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

August 31, 1987

L-2547

Mr. E. W. Drislane
Executive Director
Friction Material Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following
two (2) numbers.

FMSI No. 3BB, 22FD, 3EE, 23FD, 29FD
3FS, 9FS, 16FS, 11MB, 17MB.

Thank you in advance for your help concerning this
matter.

Sincerely yours,

Takashi Kudo
Senior Engineer
AKEBONO AMERICA, INC.

TK/aap

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

September 3, 1987

Mr. Takashi Kudo
 Akebono America, Inc.
 3168 Doolittle Drive
 Northbrook, IL 60062

Dear Mr. Kudo:

This is in reply to your letter of August 31, 1987 where you asked for drawings for certain part numbers. Those numbers are not FMSI Numbers. I believe they are European Numbers. We have FMSI drawings for what may be five (5) of the numbers. They are:

<u>European Number?</u>	<u>FMSI Number</u>
29 FD	778
9 FS	8026A
16 FS	788
11 MB	8013
17 MB	8031

We are not sure of our cross-over, but this is the best we can do. If in the future you are requesting drawings, please understand that the only drawings we have on file are FMSI Numbered drawings.

Sincerely,

FRICITION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
 Executive Director



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

November 20, 1986

L-2272

Mr. E. W. Drislane
Executive Director
F.M.S.I. Inc.
East 120 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

I received your copy of semi-metallic brake lining and asbestos phase-out plans of November 11, 1986. I am grateful to you for your kindness.

We would appreciate it if you would send the following information. Could you please show us model in 1986 U.S. Medium & Heavy-Duty Trucks equipped with non-asbestos or semi-metallic brake block for Cam Air Brake and Wedge Brake?

Items are as follows: (Medium & Heavy-Duty Trucks)

1. Front Cam Air Brake and Wedge Brake brake block.
2. Rear Cam Air Brake and Wedge Brake brake block.

Please let us know the model and F.M.S.I. no.

Also, could you please send drawing to us for the following (5) numbers.

F.M.S.I. No. 794, 8021, 8023, 8024, 8036(sp)

Thank you in advance for your help regarding this matter.

Sincerely yours,

AKEBONO AMERICA, INC.

Takashi Kudo
Senior Engineer

TK/aap

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE
EAST 210 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 845-0440

SOLO TO

SHIPPED TO

Akebono America, Inc.
 3168 Doolittle Drive
 Northbrook, IL 60062

Attn: Mr. Takashi Kudo

DATE	DATE SHIPPED	SHIPPED VIA	YOUR ORDER NO.	P.O.#	TERMS	INVOICE NO.	
11-26-86	11-26-86	1st Class	Letter - 11/20		No Charge	0001143	
QUANTITY	DESCRIPTION					PRICE	AMOUNT
5 Prints	FMSI Clutch Facing Drawings (FMSI 794, 8021, 8023, 8024, 8036)					No Charge	
Per Takashi Kudo letter of November 20, 1986. Note, we have no FMSI 8036(sp) and have sent 8036.							

ITEM #N073 WHEELER GROUP INC.

TRIPPLICATE COPY

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

December 9, 1986

Mr. Takashi Kudo
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Kudo:

This is in reply to your letter of November 20, 1986 (Reference L-2272).

We have no information on the usage of non-asbestos or semi-metallic brake linings on heavy duty trucks. To the best of my knowledge, that information is not available.

I would estimate that non-asbestos brake blocks do not have more than 10% usage on heavy duty trucks as original equipment. I have no idea on the usage of semi-metallic blocks. However, certain aftermarket suppliers market non-asbestos blocks, and they may have more than 10% of the aftermarket.

We do not have the type information you requested.

Under separate mailing, we sent the five clutch facing prints that you requested on November 26, 1986.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/dr



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

November 4, 1986

L-2255

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
East 120 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

We would appreciate it if you would send the following information. Could you please show us model in 1986 U.S. Automotives equipped with semi-metallic brake linings for disc and drum brakes?

Items are as follows:

1. Front Disc brake lining.
2. Rear Disc brake lining.
3. Front Drum brake lining.
4. Rear Drum brake lining.

If you have information on non-asbestos lining for disc brakes and drum brakes excluding semi-metallic linings, please let us know the model and FMSI no.

Also, if you have the latest bulletin and information of ban and phase out asbestos uses, could you please send us that data?

Thank you in advance for your help regarding this matter.

Sincerely yours,

AKEBONO AMERICA, INC.


Takashi Kudo
Senior Engineer

TK/aap

FRICITION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

November 10, 1986

Mr. Takashi Kudo
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Kudo:

This is in response to your letter of November 4, 1986.

Front/Rear Semi-Metallic Disc Brake Linings

I have enclosed our BULLETIN NO. 846 which covers semi-metallic disc brake usage as sold on vehicles in the North American market for 1986. An identical mailing was made to your Mr. Naoya Saito on February 18, 1986.

Front/Rear Semi-Metallic Drum Brake Linings

We do not have sufficient information to be sure of drum brake semi-metallic usage. We have seen semi-metallic drum brakes on:

1986 Ford Taurus, Mercury Sable rears (FMSI 1395-566)

1984 BMW 325e rears (FMSI 1382-548)

1986-85 Mercury Merkur rears (FMSI 1388-557)

1986-85 General Motors M Vans - Astro, Safari rears (FMSI 2117ATT-514)

They may be used on certain Volkswagen passenger car drum rears. We know of no usage of semi-metallic drum fronts.

Non-Asbestos (Excluding Semi-Metallic) Usage

We do not have information in this area. We believe there are certain 1986 Ford Trucks with non-asbestos drum brake linings on the rears. There may also be some non-asbestos lining on front pads, but we do not have specific information. Most lining companies and vehicle manufacturers do not spell out whether the lining is asbestos-free or not.

Asbestos Phase-Out Plans

I am enclosing the following:

EPA Notice of January 29, 1986 - Proposed Asbestos Prohibition

One Page Summary of EPA Proposals

FMSI Comments to EPA on the asbestos proposals

November 10, 1986

The EPA (Environmental Protection Agency) held hearings on their proposed phaseout and prohibition recommendations starting in July 1986. These are still proposals. There is considerable opposition to certain proposals made by EPA. While it is unlikely that the proposals will be put in the form of final rulemaking until 1987, there will be considerable pressure to replace asbestos in friction materials.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

February 14, 1986
L-2013

Mr. E. W. Drislane
Executive Director
FMSI, INC.
East 210 Route 4
Paramus, NJ 07652

Re: 1986 Automotive Data Book

Dear Mr. Drislane:

This letter is being sent to you to request that you order thirty (30) copies of the above mentioned book.

We appreciate your handling this order for us and we would like to thank you in advance.

Sincerely yours,

Ray Miyazaki
Sales Manager

RM/sk

Page 6/10

*From Tawatake
5/7*

(N)

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE

E-210 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 245-0440

SOLD TO

SHIPPED TO

Akabono of America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Same

Attn.: Ray Miyazaki

DATE	DATE SHIPPED	SHIPPED VIA	YOUR ORDER NO.	F.O.B.	TERMS	INVOICE NO.	
05-23-86	05-06-86	UPS	Miyazaki 2/14	St.Clair Shores	Net	004922	
QUANTITY	DESCRIPTION					PRICE	AMOUNT
30	1986 Automotive Data Book with 5 hole punch					.958 ea.	28.74
	UPS Charges						\$30.52
	Total						4.28
							\$33.02

Item # NV-R75 • Wheeler Group Inc.



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

February 5, 1986
L-2005

Mr. E. J. Drislane
Executive Director
F.M.S.I. Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

We would appreciate it if you would send the following information to us.

I received a copy of "Bulletin No. 785" from you about a year ago. That Bulletin was an up-to-date listing of the vehicles sold in the North American market using semi-metallic disc brake linings. Could you please show us the latest bulletin for disc brakes and drum brakes.

If you have information on non-asbestos linings for disc brakes and drum brakes excluding semi-metallic linings, please let us know the model and FMSI No.

Very truly yours,

Naoya Saito
Senior Engineer

NS/sk

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

12 February 1986

Mr. Naoya Saito
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Saito:

This is to reply to your letter of February 5, 1986.

We will shortly issue a Bulletin which will add up-dated listings of vehicles using semi-metallic disc brakes on vehicles sold in the North American market. This bulletin will be for disc brakes only. The drum brake usage on cars and light trucks sold in the North American cars is at this time minimal with semi-metallic brake linings. When I have information on this usage, I will send it to you. I do not expect that more than three or four vehicles will be involved.

As regards non-asbestos linings other than semi-metallic, I have no information in this area.

When the semi-metallic disc brake usage Bulletin is ready, a copy will be sent to you.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

BULLETIN
546
sent
2/18/86

MAILING LIST CHANGE

Member AKERBAND Date 11-20-85

This change affects the following lists:

Board of Directors	☐	Historical Sales	☒
Delegates and Alternates	☐	Brake Performance SC	☐
Regional - US Dues	☒	Data Book Committee	☐
Regional - Regular	☐	HEA Committee	☐
Licensees	☐	Data Book Bulletin	☒
List A (Regulations)	☐	Shoe Bulletin	☒
List B (Factory)	☐	Ledger Card	☒
List C (Catalogs)	☐	Other _____	☐
List D (Cross Reference)	☐	(Describe)	

Change List as Follows:

Every place we have Mr. S. Ishige, replace him with Mr. T. Kashiwagi.

Source of Change: T. Kashiwagi phone 11-19-85

Requested By:

EWD

Change Made By:

DK

Date

11-19-85

11/20/85

Akebono

TELEPHONE (201) 845-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

November 19, 1985

Mr. T. Kashiwagi
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Kashiwagi:

Per our phone conversation, I've attached a list of Laboratories that do environmental consulting. Perhaps they can help with the Material Safety Data Sheet.

Also, you might look in the yellow pages of your telephone for those listed under "Environmental Consultants."

The address and phone number for the Asbestos Information Association is:

Asbestos Information Association
1745 Jefferson Davis Highway
Crystal Square 4, Suite 509
Arlington, VA 22202
(703) 979-1150

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

FMSI 12739



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

November 7, 1985
L-1936

Mr. E. J. Drislane
Executive Director
F.M.S.I. Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

We would appreciate it if you would send the following information:

Please inform us of the 1984 U.S. automotive models equipped with wear sencer for brake pads.

Items are as follows:

1. mechanism (clip)
2. worked by electricity

Very truly yours,

Naoya Saito
Senior Engineer

NS/sk

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

November 14, 1985

Mr. Naoya Saito
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Saito:

This is to reply to your letter of November 7, 1985 as regarding the use of wear sensors. I cannot list it by models - I will list by FMSI Numbers and you can refer to the 1984 Automotive Data Book to determine which models. Also, I am not sure of this so I will not guarantee its accuracy. I believe wear sensor usage is as follows:

General Motors Cars

All cars use a mechanical wear sensor. The following FMSI Numbers take the sensor:

728A-D52	7130-D190	7136-D215
7070C-D183	7070A-D138	7070A-D202
7135-D214	7165-D261	7166-D262

Ford Motor Company Cars

I believe the following FMSI Numbers have mechanical wear sensors:

7072B-D237	7082B-D200	7124A-D204
------------	------------	------------

Chrysler Corporation Cars

I believe the only Chrysler Corp. passenger car which takes a wear sensor is an electrical probe. It is FMSI 7133B-D219.

American Motors Cars

The American Motors cars taking FMSI 7122A-D203 and 7131A-D218 take mechanical wear sensors.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

FMSI 12741



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

October 30, 1985
L-1929

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following twenty-one (21) numbers.

FMSI No. 764D, 750E, 796A, 896B, 8042, 8016B, 9036,
993A, 1033A, 1056B, 1057H, 1061, 1092A, 1095,
10009, 10010, 1142E, 1148F, 1270, 1236B and
1365.

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito
Naoya Saito
Senior Engineer

NS/sk

*Sent 11/5
per 1016*



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

September 25, 1985
L-1911

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following six (6) numbers.

FMSI No. 736C, 909B, 8037A, 701, 933A and 1057F

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito
Senior Engineer

N 933A

NS/sk

See 1 9/20/85



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

July 3, 1985
L-1876

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following eight (8) numbers.

FMSI No. 791, 909C, 1005A, 1142J, 1236B, 1276, 1374
and 1388

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito
Naoya Saito
Senior Engineer

NS/sk

Sent 7/9



↓
AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

June 26, 1985
L-1869

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following five (5) numbers.

FMSI No. 2165T, 2164, 7130, 7136 and 7070C

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito

Naoya Saito
Senior Engineer

NS/sk

Chen 27/2

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE
E-310 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 849-0440

SOLD TO

SHIPPED TO

Alaboma America, Inc.
 3168 Deelittle Drive
 Northbrook, Illinois 60062

Same

Att.: Naoya Saito

DATE	DATE SHIPPED	SHIPPED VIA	YOUR ORDER NO.	F.O.B.	TERMS	INVOICE NO.
07088-85	07-02-85	1st Class	Naoya Saito	--	Net	004775
QUANTITY	DESCRIPTION				PRICE	AMOUNT
10 prints	2164 (2), 2165T (2), 7070C (2), 7130 (2), 7136 (2)				\$1.00	\$10.00

Item # NV R75 © Wheeler Group Inc.



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

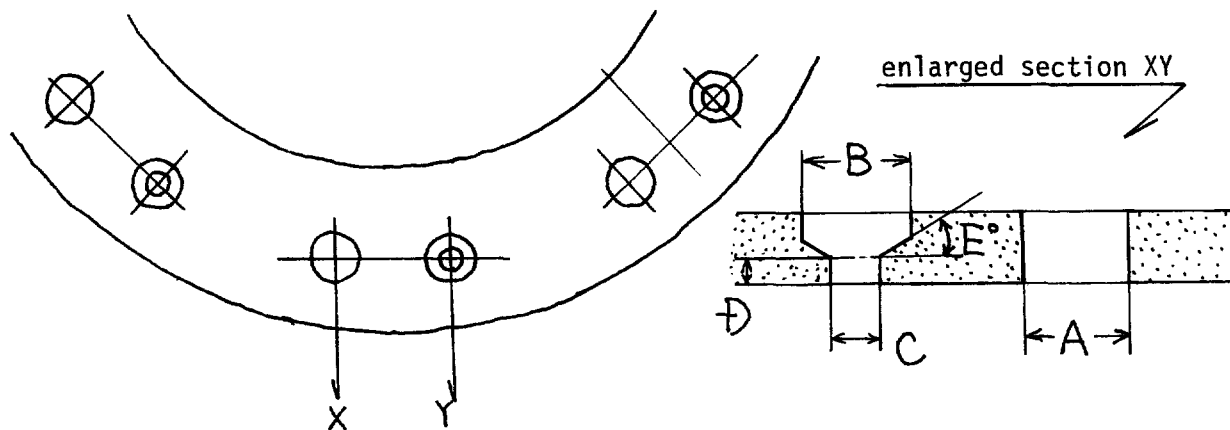
June 7, 1985
L-1853

Mr. E. W. Drislane
Executive Director
Friction Materials Standards
Institute, Inc.
Bergen Mall Office Center
E210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please show us the dimension A, B, C, D and E which is indicated in the enlarged section XY on FMSI drawing #743B.

If possible, please show us the same dimensions also on drawing #750D, 773, 779, 785A, 796, 796A, 8046 and 10013.



Thank you for your assistance.

Sincerely yours,

Naoya Saito

Naoya Saito
Senior Engineer

NS/sk

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

June 10, 1985

Mr. Naoya Saito
 Akebono America Inc.
 3168 Doolittle Drive
 Northbrook, IL 60062

Dear Mr. Saito:

This is to reply to your letter of June 7, 1985 (L-1853).

As I replied to you in my letter of April 24, 1985, where dimensions are not shown on our prints, it is because we do not know what the dimensions are. If I knew what the dimensions were, I would have them on the prints. The following dimensions are taken from prints:

<u>FMSI NO.</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
750D	?	?	?	?	?
773	27/64"	27/64"	13/64"	?	?
779	?	?	?	?	?
785A	8.7mm	8.7mm	4.3mm	?	?
796	11mm	11mm	5.5mm	?	?
796A	8.7mm	8.7mm	4.2mm	?	?
8046	10.5mm	10.5mm	5.3mm	?	15 ⁰
10013	9mm	?	11/64"	?	?

Again, if the dimension is not on the print, I do not know what the dimension is.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E.W. Drislane
 Executive Director



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

June 5, 1985
L-1845

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

We were pleased to receive the five (5) drawings that you sent to us on May 31st.

We would now like to ask you to send the following five (5) brake shoe drawings to us again:

FMSI Shoe No.: 242, 263, 363, 445 and 462

We would appreciate it if you could send them as soon as possible.

Thank you in advance for your cooperation.

Best regards,

M. Miyamoto

Masahiro Miyamoto
Sales Manager O.E.S.

MM/sk

*Received 1085
6-11-85*



AKEBONO AMERICA, INC.

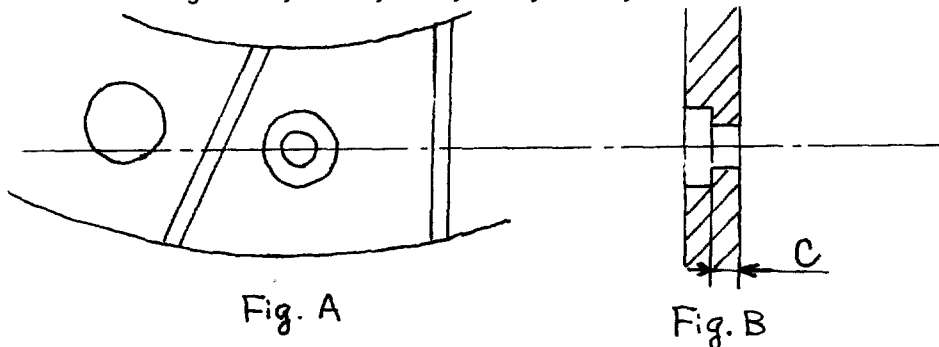
3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

April 22, 1985
L-1808

Mr. E. W. Drislane
Executive Director
Friction Materials Standards
Institute, Inc.
Bergen Mall Office Center
E210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please show us the dimension C which is indicated in Fig. B
on drawing #796, 750D, 773, 779, 785A, 796A & 10013.



Thank you for your assistance.

Sincerely yours,

Naoya Saito

Naoya Saito
Senior Engineer

NS/sk

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

April 24, 1985

Mr. Naoya Saito
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Saito:

This is to reply to your letter of April 22, 1985, copy attached.

Where we do not show a dimension on a print, as the case was with FMSI 796, 750D, 773, 779, 785A, 796A, and 10013, it is because we do not know what the dimension is. Your guess is as good as mine.

I would imagine the C dimension is about 1.5 mm (.060"), as that is what is used on many facings of the same general dimensions.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director



↓
AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

May 14, 1985
L-1832

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following six (6) numbers.

FMSI No. 794, 794A, 795, 797, 798 and 1277A

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito
Naoya Saito
Senior Engineer

NS/sk

4692
5/17/85



↓
AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send drawings to us for the following five (5) numbers.

Drw. No. 402, 445, 457, 460 and 469

Thank you in advance for your help concerning this matter.

Sincerely yours,

M. Miyamoto
Masahiro Mike Miyamoto
Sales Manager
Akebono America Inc.

MMM/kk

*Mailed No charge
Invoice 1082, 5-28-85*



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

April 10, 1985
L-1789

Mr. E. W. Drislane, Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210, Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send us drawings for the following twenty-three (23)
clutch facings:

FMSI No.

779	1169B	8038
771A	1236C	8041
750D	1312B	8043
785	1367	8025A
796	1553	9035
1142E	1553A	10013
1142H	8013A	10015
1166A	8018B	

Thank you in advance for your help concerning this matter.

Sincerely yours,

Naoya Saito
Naoya Saito
Senior Engineer

NS/rmk

Sent 4/12/85



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

March 12, 1985
L-1750

Mr. E. W. Drislane
Executive Director
Friction Materials Standards
Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

*deleted from is
from is 4652, 3/15*

Dear Mr. Drislane:

Please send drawings for the following (8) numbers to us:

FMSI 764, 792, 909, 990B, 9029, 1057B, 1057S
and 1142G

Thank you in advance for your help concerning this matter.

Sincerely yours,

R. Miyazaki
Ryuji Miyazaki
Sales Manager

RM/sk



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

March 1, 1985
L-1743

Mr. E. W. Drislane
Executive Director
Friction Materials Standards
Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

Please send us drawings for the following thirty-eight (38) numbers and any information on the annual sales quantities for the top ten numbers or anything else of interest.

FMSI No. D33, D55, D112, D114, D127, D152, D154, D155, D151, D169, D227, D228, D241, D242, D243, D244, D246, D248, D263, D265, D286, D329, D333, D363, D447, D449, D462, D476, D472, D473, D474, D476, D487, D500, D501 and D520.

Thank you in advance for your help concerning this matter.

If you have any questions, please contact us at anytime.

Sincerely yours,

Sachiya Ishige
Senior Vice President

SI/sk

Sent 3/1/85
Replacement
drum brake
photos

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

March 8, 1985

Mr. Sachiyaiki Ishige
Akebono America Inc.
3168 Doolittle Drive
Northbrook, IL 60062

Dear Mr. Ishige:

Per your March 1, 1985 letter we are shipping you the prints listed on our Packing List enclosed. We are not shipping D329, D333, D363, D447, D449, D462, D476, D472, D473, D474, D476, D487, D500, D501, or D520. We have no such FMSI Numbers. The D prefix indicates Disc shoes and our highest Number as of now is D297.

If you wish the drum brake shoe drawings do not use a D prefix.

We have no information on annual sales quantities for the top ten numbers. We do not even know what the top ten numbers are.

Sincerely,

FRICTION MATERIALS STANDARDS

E. W. Drislane
Executive Director



AKEBONO AMERICA, INC.

3168 DOOLITTLE DRIVE • NORTHBROOK, ILLINOIS 60062
PHONE: (312) 498-1540 • TELEX: 28-3518 • FAX (312) 291-1536

January 15, 1985
L 1702

Mr. E. J. Drislane
Executive Director
F.M.S.I., Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

We would appreciate your sending us the following information.

Could you please let us know which models in the 1984 U.S. automotive industry are equipped with semi-metallic brake linings for disk brakes and drum brakes.

Items are as follows:

1. Front, Disk Brake Lining
2. Rear, Disk Brake Lining
3. Front, Drum Brake Lining
4. Rear, Drum Brake Lining

If you have information of non-asbestos linings for disk brakes and drum brakes excluding semi-metallic linings, please list the models the same as for the semi-metallic linings.

Very truly yours,

Naoya Saito
Senior Engineer

NS/sk

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

Mr. Naoya Saito
Akebono America, Inc.
3168 Doolittle Drive
Northbrook, IL 60062

January 21, 1985

Dear Mr. Saito:

This is to reply to your letter of January 15, 1985 on uses of semi-metallic brake linings.

The 1984 usage of semi-metallic disc brake linings, front and rear, is shown on our attached BULLETIN NO. 785. We cannot guarantee its accuracy or completeness, but this is the best information we have on semi-metallic disc brake lining usage.

We do not believe there is any semi-metallic drum brake usage on fronts of U. S. Vehicles. There are semi-metallic drum brakes on rears of 1984 Ford Ranger, Bronco II, and on rears of 1984 Volkswagen Rabbits manufactured in the United States. There have been other limited usage of semi-metallic drum brake rears, but to the best of our knowledge the two listed above are the only ones that stayed with the semi-metallic drum rears.

We have no information on non-asbestos brake linings other than the semi-metallics. We believe that Ford Motor Company is using non-asbestos drum rears on certain light to medium trucks. However we do not have model numbers and are not certain.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

AKEBONO

MIYAZAKI

But also cross reference.

1/85



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 Telex: 28-3518

January 31, 1984
L1364

Mr. E. W. Drislane
Executive Director
Friction Material Standard Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Re: The Requested Facing Drawing for the Pontiac 2000

Dear Mr. Drislane:

As per your request of the clutch facing drawing for the Pontiac 2000, we regret to inform you that Akebono doesn't supply it for Pontiac. Asahi Asbestos Industry Company in Japan manufactures them and the material code is DR-8.

Though we tried to get the drawing, we were not successful. We would recommend that you get in touch with Asahi Asbestos Industry Company.

If you need any further assistance, please contact us anytime.

Sincerely,

Satoshi Utsugi
Manager - Engineering

SU/sk



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 Telex: 28-3518

January 25, 1984
L1357

Mr. E. J. Drislane
Executive Director
F.M.S.I., Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, New Jersey 07652

Dear Mr. Drislane:

As you know, our company "AKEBONO" is a friction material supplier. We are very interested in the current application of "NON-ASBESTOS" friction materials in the U.S.

Please let us know those vehicle names which use

1. Semi-metallic pad (lining) for disc brakes
2. Non-asbestos lining for drum brakes
3. Non-asbestos clutch facing

We would appreciate your kind help in our investigation.

Very truly yours,

Hiroshi Hirashita
Senior Engineer

HH/sk

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER
E. 210 ROUTE 4
PARAMUS, N. J. 07652

January 30, 1984

Mr. Hiroshi Hirashita
Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093

Dear Mr. Hirashita:

This is in response to your letter of January 25, 1984. While I have some information on the usage of non-asbestos friction materials, I do not have it all. I will give you what information I have, but I do not believe it is complete.

Semi-Metallic pad (lining) for disc brakes

I am enclosing a copy of our BULLETIN NO. 750 of February 17, 1983 which indicated semi-metallic disc brake lining usage on vehicles in North America. This shows most of the 1983 models, and all carry over into 1984. In addition, the new Pontiac Fiero has semi-metallic discs front and rear.

Non-asbestos lining for drum brakes

This usage is starting.

1983-84 Volkswagen Rabbit, rear drum brakes (U.S. Production)
1983-84 Ford Ranger, Bronco II light truck rears
1984 Ford Light Truck Models (E-, F-150, F-250) rears
1982-84, General Motors (Buick, Chevrolet, Oldsmobile, Pontiac)
Heavy Duty A, G Cars, rear drum brakes, heavy duty
models for police, taxi

Non-asbestos clutch facing

In the passenger car/light truck area, Ford Motor is using non-asbestos clutch facings: 1984 Thunderbird, Mustang-Capri, Temp-Topaz, Escort-Lynx. Non-asbestos clutch facings are also used on 1984 Ford Light Truck models E-, F-150, -250, -350 models. I do not know of other non-asbestos clutches.

Other

In addition, in the heavy duty area there are many large disc brakes for heavy trucks which are semi-metallic. Also, in the heavy truck area there is considerable usage of ceramic, ceramic-metallic, or metallic buttons on clutch discs.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 Telex: 28-3518

August 3, 1983
L-1165

Mr. Edward W. Drislane
Executive Secretary
Friction Material Standard Institute, Inc.
Bergen Mall Office Center
E-210 Route #4
Paramus, NJ 07652

Dear Mr. Drislane:

Thank you for your sending the clutch facing drawings to Mr. Ishige.

We would like to ask you again to send us the copies of the following facing drawings in order to identify our drawings with FMSI facing drawings.

FMSI #
1056B
1056E
10000

Thank you for your cooperation.

Sincerely yours,

Satoshi Utsugi
Manager Engineering

Sent 8/10/83



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 Telex: 28-3518

July 22, 1983
L-8322

Mr. Edward W. Drislane
Executive Secretary
Friction Material Institute, Inc.
Bergen Mall Office Center
E-210 Route # 4
Paramus, NJ 07652

Dear Mr. Drislane:

We would like to request you to send us copies of the
following clutch facing drawings:

FMSI #

648C ✓
736G ✓
780 ✓
789 ✓
790 ✓
8040 ✓

Shiro 7/26/83
4259

Thank you very much for your fine cooperation

Sincerely yours,

Sachiyuki Ishige
Director of Marketing
& Planning



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288

Northfield, Illinois 60093

Phone: (312) 446-3397 † Telex: 28-3518

2/21/83

1983 Supplement Data Book

Dear Mr. Driskane:

We would like to have 15 copies of
the supplement publication.

Please process our Order.

Thank you always.

pd 6/20/83

T. KASHIWAGI
Vico President

(A)

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE
E-210 ROUTE 4 • PARAMUS, NEW JERSEY 07653 • PHONE (201) 845-0440

SOLD TO

SHIPPED TO

Alabono America, Inc.
 550 Frontage Road, Suite 288
 Northfield, IL 60093

Same

Attn.: T. Kashiwagi

DATE	DATE SHIPPED	SHIPPED VIA	YOUR ORDER NO.	F.D.B.	TERMS	INVOICE NO.	
06-09-83	06-09-83	Parcel Post	T. Kashiwagi	Paramus	Net	004193	
QUANTITY	DESCRIPTION					PRICE	AMOUNT
15 copies	1983 Supplement to 1982 Automotive Data Book					\$2.23	\$3.35
	Parcel Post						<u>2.06</u>
	Total						\$5.41
Per T. Kashiwagi letter of 3/21/83							

(A)

Item # NV-R75 © Wheeler Group Inc.



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 Telex: 28-3518

July 19, 1983

Mr. Edward W. Drislane
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E-210 Route #4
Paramus, N.J. 07652

Dear Mr. Drislane:

Time flies like an arrow and I found it was not an exception for me. Recently I received a new assignment letter from the company to relocate my job to our head office in Tokyo, Japan. I will be leaving Chicago on July 26, 1983.

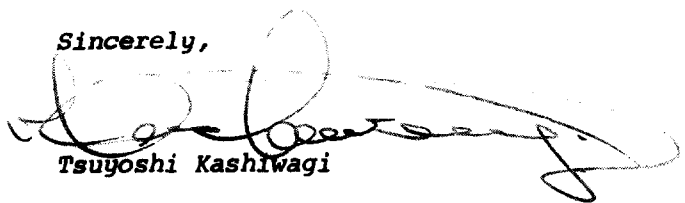
I have been here in the Chicago area for more than 6 years. My family and I have enjoyed our stay in the U.S. and feel we have grown from the experience. Many thanks for your friendship and business relationship extended during our stay here.

I can not find any appropriate words other than "Thank you very much" to express what I feel about you and this country now. I will miss all of you, but never forget the beautiful memories for the rest of my life.

Please extend your warmest support to Mr. T. Sato and Mr. S. Ishige who are my successors. Please help them have fruitful lives while in the U.S.

I wish you good health and success in your life to come along. "Good-bye", but I'm looking forward to seeing you again someday.

Sincerely,


Tsuyoshi Kashiwagi

TK/bc

AKEBONO

APR 26 1983

Mr. Yasusada Nobumoto
President of Akebono Brake Industry Co., Ltd.

cordially invites you to attend

a Reception

in honour of

Mr. Chuck H. Nobumoto
President of Akebono America, Inc.

on the occasion of his new assignment
to station in the United States

Mr. Tsuyoshi Kashiwagi
Executive Vice President of Akebono America, Inc.

who is returning to Japan

and

Mr. Takeshi Sato
for his assignment as
Executive Vice President of Akebono America, Inc.

on Tuesday evening, June 14, 1983

at 6:00 p.m. thru 8:00 p.m.

The North Shore Hilton Hotel
9599 Skokie Blvd., Skokie, Illinois
(Golf Road and Skokie Blvd.)

R.S.V.P. Card Enclosed



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 ; Telex: 28-3518

W

Mr. E. W. Drislane
Executive Director
Friction Material Standard Institute, Inc.
Bergen Mall Office Center
E. 210 Routs 4
Paramus, NJ 07652

January 25, 1983
L-963

Subject: Your inquiry about a facing for 1983 Pontiac J2000
(Re. your letter of 11/24/1982 to T.Kashiwagi)

Dear Mr. Drislane:

Regarding the subject, we have found that the facing for J2000 is not Akebono's production. The facing's material is called DR-8, manufactured by Asahi Asbestos Industry Co. in Japan, and equipped in Daikin's clutch assembly for J2000.

We tried to get the print of the drilled facing. However, it was not successful.

If you need further assistance please contact us anytime. We are very happy to be of help to you.

Sincerely yours,

Hiroaki Sugita

Hiroaki Sugita
Akebono America, Inc.

cc: T. Kashiwagi

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

November 24, 1982

Mr. T. Kashiwagi
Akebono America, Inc.
550 Frontage Road
Suite 288
Northfield, IL 60093

Dear Mr. Kashiwagi:

I have input from General Motors Corporation on the original equipment clutch facings used on the 1983 Pontiac 2000 car, with the 1.8 Liter fuel injected engine. They list the following for the clutch facing:

Outside Diameter	215 mm
Inside Diameter	154 mm
Thickness	?
Drilling	16 holes per facing

They note that the facing is for a Daikin Clutch, sourced in Japan. Would you have a drawing showing the drilling for such a facing? If so, we'd most appreciate a drawing so that an FMSI release could be made. Thank you.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE



E. W. Drislane
Executive Director

EWD/e

11/29/82 CW
FMSI 12771
11/29/82 FMSI 12771



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 † Telex: 28-3518

August 17, 1982

and

Friction Materials Standards Institute
East 210 Route 4
Paramus, NJ. 07652

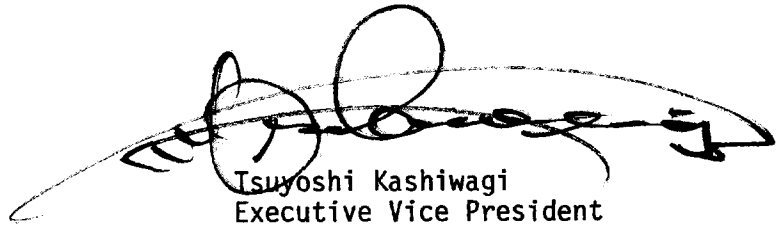
Attention Mr. Ed. W. Drislane, Executive Secretary

Dear Mr. Drislane:

Please send us 8 copies of 1982 Automotive Data Book,
3 copies of which we received today with no charge.

Thank you always,

Sincerely yours,



Tsuyoshi Kashiwagi
Executive Vice President

pd 9-7-82

(H)

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE

E-310 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 848-0440

SOLD TO

SHIPPED TO

Akemono America, Inc.

530 Frontage Road

Suite 288

Northfield, IL 60093

Attn.: T. Kashiwagi

Same

DATE	DATE SHIPPED	SHIPPED VIA	YOUR ORDER NO.	F.O.B.	TERMS	INVOICE NO.
08-30-82	08-30-82	4th Class	Kashiwagi 8/17	Paramus	Net	004010
QUANTITY	DESCRIPTION				PRICE	AMOUNT
8 copies	1982 Automotive Data Book with Shole punch				\$.734	\$5.87
	Fourth Class Postage (2 Envelopes)					4.12
	Total:					\$9.99
Shipment per T. Kashiwagi letter of 8/18/82. Shipment made in two (2) 10 x 13 manila envelopes						

(14)

(14)

Item # NV-R75 © Wheeler Group Inc.

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

August 3, 1978

OFFICE OF THE
PRESIDENT

Mr. E.W. Drislane
Executive Director
FRICTION MATERIALS STANDARDS
INSTITUTE, INC.
Bergen Mall Office Center
E. 210 Route 4
Paramus. N.J. 07652
U.S.A.

W

Dear Mr. Drislane

We are in receipt of your letter dated July 10, 1978 concerning regional member fee.

As indicated in the letter, We will commence clutch facing business in the States using FMSI numbers and agree to pay \$1,700.

Sincerely,

for Y. Nobumoto
Y. Nobumoto (by K.S.)

Akebono

July 10, 1978

Akebono Brake Industry Co., Ltd.
19-5 Nihonbashi Kosmi-cho
Chuo-ku
Tokyo, Japan 103

Attention: Mr. Y. Nobumoto

Gentlemen:

On June 27, 1978 the Board of Directors of the Friction Materials Standards Institute met in Scottsdale, Arizona. Among the items reviewed by the Board was the fee structure for Regional Members. My letter of April 10, 1978 (copy attached) to Akebono was discussed as regards the possibility that Akebono may be participating in the clutch facing category by marketing these products in the United States. I indicated that I had not received a reply to this letter and the Board suggested that I contact you again to see if you would be participating in the clutch facing category.

As I explained in the earlier letter, if you were marketing clutch facings in the United States using the FMSI numbering systems, the Annual Fee would be increased from \$1,300 which you have been paying, to \$1,700. If you will not be participating in the clutch facing category for marketing your products in the United States, I would appreciate a letter to that effect so that I could make my billing accordingly. In other words, if you are not participating in the clutch facing category (ie, marketing clutch facings in the United States using FMSI numbers) your annual fee billing would be the \$1,300 as it has been in the past.

Your help in straightening out the fee schedule for Akebono would be most appreciated.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/lmc

E. W. Drislane
Executive Director

FMSI 12775

Akelmr

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

April 10, 1978

Akebono Brake Industry Co., Ltd.
19-5 Nihonbashi Koami-cho,
Chuo-ku
Tokyo, Japan 103

Attention: Mr. Y. Nobumoto

Gentlemen:

I have had recent contact with your Office at 200 E Randolph Drive in Chicago, Illinois. In general, most activities with your Office have dealt with clutch facings.

You may be aware that the Friction Materials Standards Institute has maintained a constant dues level for Regional Members over the last 8 years. This annual fee had been U.S. \$1,300, and has been billed in quarterly installments of \$325. Also, this fee is less than that Active Members (U.S. resident members) of the Institute pay.

Some years ago a few Regional Members were interested in marketing their products in the United States. A policy was established that those members would pay a dues level equivalent to that of a U.S. manufacturer. As I believe that Akebono is now marketing clutch facings in the United States using the FMSI numbering system I believe that Akebono should be paying the same fee that the Active Member (U.S. resident member) is paying. If Akebono is participating in the clutch facing category only (that is marketing clutch facings in the United States using the FMSI numbering system) your annual dues would be computed as follows:

	Annual basic fee:	\$1,050
Additional one category--clutch facings--fee:		\$ 650
	Total Annual fee:	\$1,700

I would appreciate it if you would complete the enclosed category filing declaration for Regional Members. This filing is only for the product category that a Regional Member is marketing in the United States. I believe that this would only be clutch facings as far as Akebono is concerned.

Mr. Y. Nobumoto

Akabono Brake Industry Co., Ltd.

-2-

April 10, 1978

Any fee change would not take effect until the 1978-79 fiscal year which starts July 1, 1978. I am sure that you understand that it is only fair that Regional Members marketing products in the United States pay the same dues level that American manufacturers pay for marketing their products in the United States.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

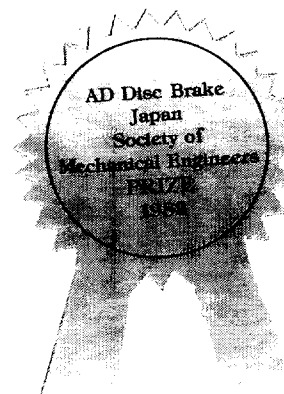
EWD/lmc
Enc.

E. W. Drislane
Executive Director



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 † Telex: 28-3518



July 30, 1982
L-854

Mr. Edward W. Drislane
Executive Secretary
Friction Material Standard Institute, Inc.
Bergen Mall Office Center
E-210 Route #4
Paramus, NJ. 07652

Dear Mr. Drislane:

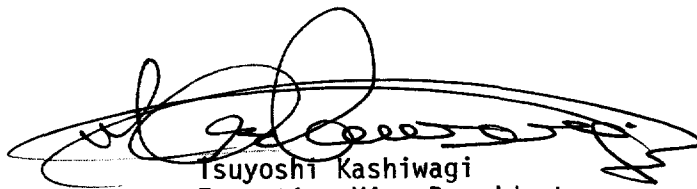
We would like to request you to send us copies of the following clutch facing drawings;

FMSI #

1517
1372B
1233D
1373
1628A

Thank you for your cooperation.

Sincerely yours,



Tsuyoshi Kashiwagi
Executive Vice President

Akebono

TELEPHONE (201) 845-0440

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

April 30, 1982

Mr. Tsuyoshi Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093

Dear Mr. Kashiwagi:

A few weeks back you called about the Lining Materials and Friction Codes for semi-metallic materials used on passenger cars in the United States. I referred you to the MVMA who prepare specifications Forms which some of the automobile manufacturers use.

I have copies the brake sheets from all specification forms which I have for the 1982 cars. If a vehicle is not shown it is because I do not have the data. Some show material number. Some show the friction codes. Some show only material type. Whatever is on the form is all I have.

Perhaps this will help you with the information you seek. I have bundled the forms by company: AMC, Ford Motor, Chrysler and General Motors.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

FMSI 12779

Akebono

TELEPHONE (201) 845-0440

FRICION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

April 14, 1982

Mr. T. Kashiwagi
Akebono America, Inc.
550 Frontage Road
Suite 288
Northfield, IL 60093

Dear Mr. Kashiwagi:

As I indicated to you, I do not have a list of the suppliers and Friction Codes for semi-metallic disc brake linings. I am not provided that information.

I am not sure, but it might be shown in some specifications put out by the Motor Vehicle Manufacturers Association (MVMA). These are not available directly from MVMA, but may be available from the names on the list enclosed.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

FMSI 12780

Akebono

TELEPHONE: (201) 645-0440

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

March 8, 1982

Mr. Tsuyoshi Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093

Dear Mr. Kashiwagi:

Recently you called concerning FMSI 11,004 clutch facing. You indicated that this facing was to have its outside diameter reduced from 11-7/8 to 11-3/4.

For reference, FMSI 11,004 is: 11-7/8 O.D. x 6-3/4 I.D.

I have checked around on this but have not been able to verify this. The suppliers I checked with market this in the aftermarket at 11.875. Some order this at 11.85. But there is nothing for this size that is at 11.75.

We will be keeping the 11,004 at 11-7/8 outside diameter.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
Executive Director

EWD/e

FMSI 12781

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

BULLETIN

NO. 731

February 19, 1982

Please send us
5 copies of 1982 Data Book

Regards. AKEBONO AMERICA, INC.
550 Frontage Rd. Suite 308
Northfield, Illinois 60093
TEL. (312) 446-3397
TELEX 28-3518

ORDERS FOR THE 1982 AUTOMOTIVE DATA BOOK

The contract for the printing of the "1982 Automotive Data Book" has been awarded to:

T. KASHIWAGI

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

See L No. 1000
8/16/82 (870)

This book is a completely new catalog which will combine the lining and facing information formerly in the Red Book with the brake shoe identification information formerly in the Blue Book. For this reason, it will be larger than before--probably to include about 160 pages plus cover. Also, because of the new format, this book will be available to Licensees as well as Active Members and Regional Members.

On an estimate of the total order quantity being 60,000 copies with 160 pages, the preliminary price is

\$719.00 per Thousand-Basic Catalog
15.00 per Thousand-5 hole punch

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 Corley Printing Company, 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 April 1, 1982.

EWD/erc

Distribution: Active Members-List D
Regional Members
Licensees

E. W. Drislane

Executive Director



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 ‡ Telex: 28-3518

Mr. E. W. Drislane
Executive Director
FMSI, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, N.J. 07652

December 15, 1981
L-695

Cur

Dear Mr. Drislane:

As per your request by letter of 10/16/1981, enclosed herewith please find a copy of drawing of Rear Disc Brake Pad for 1979 - 80 Plymouth Arrow manufactured by Mitsubishi.

Should you have any questions on this drawing please call us any time.

Thank you very much for waiting for long time.

Then, have nice Christmas and New Year Holidays.

Best Regards,

Hiroaki Sugita
Hiroaki Sugita
Akebono America, Inc.

*Print was not the
Arrow pads - it was
7077-D144 Super
Challenge pads.*

encl:

AKEBONO

October 16, 1981

Mr. Tsuyoshi Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093

Dear Mr. Kashiwagi:

I'm asking your help for information on rear disc brake pads used on the 1979-80 Plymouth Arrow with the 2600cc engine. This car was manufactured by Mitsubishi for the 1979-80 model years.

The specification sheet that we received showed Akebono as the source for rear disc brake pad. This is not the same rear pad as used on the larger Dodge Colt Challenger/Plymouth Sapporo models. I am enclosing a copy of the specification sheet for these 1979-80 Plymouth Arrows (Mitsubishi).

If you could provide me with a drawing of the disc brake pad for these Arrow rears, it would be most appreciated. We would intend to make an FMSI assignment for the pad.

Sincerely,

FRICITION MATERIALS STANDARDS INSTITUTE

EWD/erc
Enc:

E. W. Drislane
Executive Director

FMSI 12784

INVOICE

FRICION MATERIALS STANDARDS INSTITUTE

EAST 210 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 845-0440

SOLD TO

SHIPPED TO

Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093
Attn.: Mr. T. Kashiwagi

Same

7/31/81

DATE	DATE SHIPPED	SHIPPED TO	SHIPMENT NO.	TERMS	INVOICE NO.
07-29-81	07-29-81	1st Class Kashiwagi		No Charge	No 000744
QUANTITY	DATE SHIPPED	SHIPPED TO	SHIPMENT NO.	TERMS	INVOICE NO.
14 Prints	FMSI 4317A, 4317B, 4317E, 4317F, 4317G, 4468A, 4468B, 4515G, 4551B, 4551E, 4625A, 4625B, 1308 4551C			No Charge	0.75 \$10.5
NOTE: This is a replacement shipping of prints originally covered under our Invoice 3649 of June 23, 1981. Mr. Kashiwagi had not received those prints.					
NOTE: Print for 4317A had to be marked on 4317 print--this is inactive and print was not available.					

CK # 627 \$10.50

Recd 8/1/81

8/4/81



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 † Telex: 28-3518

and
July 10, 1981

L-575

Mr. E. W. Drislane
Executive Director
F.M.S.I.
Bergen Mall Office Center
E 210 Route 4
Paramus, NJ 07652

Dear Mr. Drislane:

Referring your letter of June 22, 1981, we would like to inform you of our current situation in Brake Block business in the United States.

We have started to study the possibility of marketing Brake Blocks from this spring, but at this point of time this program has not been actually achieved yet.

We would be very much pleased to inform you of starting to market Brake Blocks when we made a decision in the future.

We will be getting in touch with you.

Very truly yours,

Tsuyoshi Kashiwagi
Vice President

cc: Mr. S. Furuya, Director of Akebono Int'l Ltd.

Akebono

JUN 22 1981

Mr. Tsuyoshi Kashiwagi
Akebono America, Inc.
550 Frontage Road
Suite 399
Northfield, IL 60093

Dear Mr. Kashiwagi:

In a recent letter, you advised that Akebono was now interested in the brake block business in the United States. In response to that letter, we sent several block prints to your office.

As I believe you are aware, since Akebono-America pays the fee for marketing clutch facings in the United States, the Institute's annual membership fee is based on categories in which a Member is engaged. To explain this, I have attached a copy of "Regional Members - Category Filing."

Essentially this means that if Akebono is engaged in two categories (clutch facings and brake blocks) that the fee would be increased from the one category (clutch facings) now in effect. Based on our basic fee of \$1,150 and \$700 for each category, the fee would be increased from \$1,850 to \$2,550 annually. If you will now be marketing brake blocks in the United States, would you kindly complete the category filing report attached and return it to the Institute. Any change in fee would be reflected in billing after July 1, 1981,

If there are any questions on this, please let me know.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc
Enc:

E. W. Drislane
Executive Director

FMSI 12787



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 399
Northfield, Illinois 60093
Phone: (312) 446-3397 • Telex: 28-3518

June 8, 1981
L-555

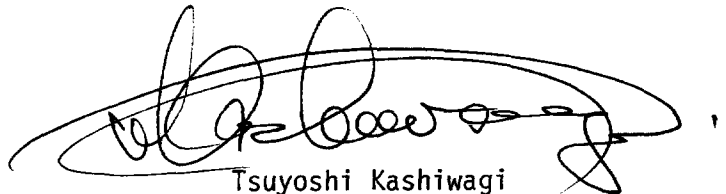
Mr. Edward W. Drislane
Friction Material Standards Institute
Bergen Mall Office Center
E-210 Route #4
Paramus, NJ 07652

We are pleased to tell you that Akebono is now interested in studying Brake Block business in the United States.

We would appreciate it if you would send us a copy of prints for each item attached hereto. (50 items).

Thank you very much for your cooperation.

Sincerely yours,



Tsuyoshi Kashiwagi
Vice President

attchd;

*Shippin
3647
54 prints
6/11/81*

June 8, 1981
L-555

Brake Block item number list requested by Akebono

4195BD
4227AD
4227GD
4228AD
4311D

4311BD
4311CD
4311GD
4316D
4317CD

4317GD
4328D
4376BD
4396D
4398BD

4468D
4471D
4514D
4514AD
4514GD

4515D
4515AD
4515BD
4515ED
4515FD

4524D
4541BD
4544D
4549D
4549CD

4551D
4552D
4567AD
4570D
4591D

4592AD
4594D
4595D
4602D
4602AD

4605D
4607D
4610D
4615D
4621D

4623CD
4625D
4626D
4627D
4654D



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 288
Northfield, Illinois 60093
Phone: (312) 446-3397 † Telex: 28-3518

Cus

May 22, 1981
L-548

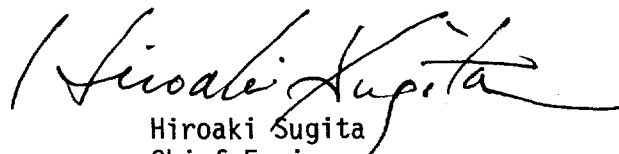
Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, NJ 07652

Dear Mr. Drislane:

Replying to your letter of March 10, 1981 in which you are asking us to check your drawings of Clutch Facing for Mitsubishi models, we enclose the latest drawings that have some different dimensions from yours.
We hope that those prints would be helpful for you.

By the way, please let us make a brief explanation on our situation as Clutch Facing OE Supplier for Japanese vehicles in Japan. One different point from U.S.A. market is that all Clutch Facing manufacturers are supplying Clutch Assembly makers with undrilled Friction Materials, and Clutch Assembly makers are drilling those clutch facings by themselves for their own use. So, any original drawings of drilled facing don't come out from us. Because of this reason it took us long time to make the requested prints available for you. Also due to the same reason we can say that you might be able to get blue-prints from clutch assembly makers. We, however, are willing to help you and to make strong cooperation in future as ever, so please make contacts with us any time without any hesitation.

Very truly yours,


Hiroaki Sugita
Chief Engineer
Akebono America, Inc.

encl: 3 copies of drawing of Facing

May 27, 1981

Mr. Hioaki Sugita
Akebono America, Inc.
550 Frontage Road, Suite 288
Northfield, IL 60093

Dear Mr. Sugita:

This is to acknowledge your letter of May 22, 1981 along with the three facing prints. Because there are drilling differences between these prints and the assignments we had made earlier for the Mitsubishi models, we are making new assignments as follows:

<u>DIMENSIONS</u>					<u>FMSI</u>
200	x	130	x	3.5	750E
184.2	X	127	x	3.2	764D

We appreciate your help on these assignments, and have the identical problem on U. S. clutch facings where the facing manufacturer ships undrilled facings. Thank you.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc

E. W. Drislane
Executive Director

FMSI 12791



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 399
Northfield, Illinois 60093
Phone: (312) 446-3397 • Telex: 28-3518

May 26, 1981
L-549

Mr. E. W. Drislane
Executive Director
F.M.S.I.
E 210 Route 4
Paramus, NJ. 07652

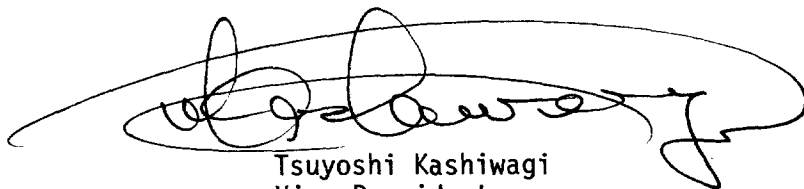
Dear Mr. Drislane:

Please send me 5 copies of 1981 Automotive
Data Book.

If I need to be charged, please send me a bill for it.

Thank you,

Sincerely yours,



Tsuyoshi Kashiwagi
Vice President

*sent 5/28/81
5 copies
4-11-81*

Akebono

March 10, 1981

Mr. Tsuyoshi Kashiwagi
Akebono America, Inc.
550 Frontage Road
Suite 399
Northfield, IL 60093

Dear Mr. Kashiwagi:

I enjoyed meeting with you again in Nashville. I indicated I might ask for some help with some clutch facing assignments.

I've enclosed copies of some pages from Chrysler Corporation data sheets on their Mitsubishi models. The clutch facing sizes are as listed, and what I assume to be the FMSI assignments are shown opposite.

<u>Outside Dia.</u>	<u>Inside Dia.</u>	<u>Thickness</u>	<u>FMSI No.</u>
184	127	3.2	764C
200	130	3.5	750C
225	150	3.5	8037

Could you look over these assignments and prints which I have enclosed. If the actual drawings for these clutch facings are different, would you please send me a copy of the correct drawing? If the assignments are correct, please advise me to that effect.

Your help with these assignments is most appreciated.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc
Enc:

E. W. Drislane
Executive Director

FMSI 12793



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 399
Northfield, Illinois 60093
Phone: (312) 446-3397 • Telex: 28-3518

Feb. 3, 1981
L - 476

Mr. E. W. Drislane
Executive Director
F. M..S. I.
E-210 Route 4
Paramus, N.J. 07652

Dear Mr. Drislane:

According with our information, the 1980 annual conference of Vehicle Equipment Safety Commission (VESC) was held on Louisville in Kentucky and two rules were revised at this time and also two new rules were registered.

Unfortunately we do not have any close informations and any copies about this matter.
Please inform us about the new rules and the revised rules of VESC. Your cooperation would be very much appreciated if you send any informations to us.

We are looking forward to hearing from you soon. If you have any questions, please contact with us any times.

Sincerely yours,

Kiyoshi Momoki
Senior Engineer
Akebono America, Inc.

P.S. Especially we would like to know about Rule-3 of VESC.
Rule-3 is for the vehicle brake linings of After Market.

cc: Mr. Moriya, Manager, Akebono Brake Ind., Co., Ltd.

February 6, 1981

Mr. Kiyoshi Momoki
Akebono America, Inc.
550 Frontage Road, Suite 399
Northfield, IL 60093

Dear Mr. Momoki:

The Vehicle Equipment Safety Commission (VESC) Regulation which concerns friction materials suppliers is Regulation V-3.

I have enclosed one copy of the V-3 Regulation as originally approved in September 1966. Also enclosed are two copies of V-3 Regulation, as recently revised. There are small technical changes in methods of sample preparation, drum cleaning, references, definitions, and there are more charts and forms illustrated. The essential parts of the test procedure are, however, generally the same as that in the original V-3 Procedure.

I suggest you look over the original and the revised V-3 Regulation. I had sent this information to the Membership back in October 1980, but perhaps we failed to send copies to Akebono.

I trust the enclosed answers any questions you may have.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc
Enc:

E. W. Drislane
Executive Director

FMSI 12795



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 399
Northfield, Illinois 60093
Phone: (312) 446-3397 • Telex: 28-3518

November 11, 1980
L-436

Mr. E. J. Drislane
Executive Director
F.M.S.I., Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, NJ. 07652

Dear Mr. Drislane:

We would appreciate it if you would send us a copy of
following clutch facing drawing;

FMSI # 1325C
1372
1365
1248
1056B

Thank you always.

Sincerely yours,

Tsuyoshi Kashiwagi
Vice President

P.S. We will be sending a copy of clutch facing drawing
that you have requested us by your letter of Oct. 20, 1980.

Shipping # 3479
sent 11/14/80
J. A. Cross

Akebono

October 20, 1980

(Assigned 8041)

Mr. T. Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 399
Northfield, Illinois 60093

Dear Mr. Kashiwagi:

We have recently received specifications for the new Chrysler Corporation K cars--the Dodge Aries and the Plymouth Reliant.

When they listed the clutch facing for the 2.2 liter engine, they indicated that Akebono is the supplier under their number 31560-99838. This is a clutch facing 215 mm OD x 140 mm ID with 16 rivets. A copy of the specification form from Chrysler Corporation is enclosed.

As you may be aware, we get our information on brake linings and clutch facings from the friction material manufacturer who supplies the part. All of our assignments are made in this fashion. As Akebono is providing this part, we're asking for a clutch facing print showing basic dimensions and drilling. We do not need proprietary information as such. We will need this information for making an FMSI clutch facing assignment for this car.

Your help in providing this print will be most appreciated.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

EWD/lmc
Enc.

E. W. Drislane
Executive Director

FMSI 12797

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE ARIES
 Model Year 1981 Issued 6-10-80 Revised (*) _____

Engine Description/Carb.
 Engine Code

2.2 L (135 in.³)
2 bbl.

Drive Units — Clutch (Manual Transmission)

Make & type		AISIN SEIKI, DRY DISC	AUTO PRODUCTS, DRY DISC
Type pressure plate springs		BELLEVILLE	BELLEVILLE
Total spring load — N (lb.)		3880-5250 (872-1180)	4400-6300 (989-1416)
No. of clutch driven discs		ONE	
Clutch facing	Material	WOVEN ASBESTOS	
	Manufacturer	AKEBONO	FERODO
	Part Number	31560-99838	57755
	Rivets/Plate	16	
	Rivet size	--	7.54 (0.297)
	Outside & inside dia.	215 x 140 (8.46 x 5.51)	215 x 152.5 (8.46 x 6.00)
	Total eff. area-cm ² (in. ²)	418.2 (64.8)	360.8 (55.9)
	Thickness	--	
Engagement Cushion method	WAVE SPRING SEGMENTS		
Release bearing	Type & method of lubrication	ANGULAR CONTACT BALL BEARING LUBED WITH GREASE	
Torsional damping	Method: springs, friction material	COIL SPRINGS AND FIBER FRICTION WASHERS	

Drive Units — Transmissions

Manual 3-speed (std., opt., N.A.)	N.A.
Manual 4-speed (std., opt., N.A.)	STANDARD
Manual 5-speed (std., opt., N.A.)	N.A.
Manual overdrive (std., opt., N.A.)	N.A.
Automatic (std., opt., N.A.)	OPTIONAL
Automatic overdrive (std., opt., N.A.)	N.A.

Drive Units — Manual Transmission

Number of forward speeds		4	
Transmission ratios	In first	3.29	
	In second	1.89	
	In third	1.21	
	In fourth (Overdrive)	0.88	
	In fifth	N. A.	
	In overdrive	N. A.	
	In reverse	3.14	
Synchronous meshing, specify gears		ALL FORWARD GEARS	
Shift lever location		FLOOR	
Lubricant	Capacity — L (pt.)		1.77 (3.75)
	Type recommended		MOPAR DEXRON II AUTOMATIC TRANSMISSION FLUID
	SAE viscosity number	Summer	--
		Winter	--
		Extreme cold	--

Akebono

November 19, 1980

Mr. T. Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 399
Northfield, IL 60093

Dear Mr. Kashiwagi:

This is to acknowledge receipt of your print for the clutch facing
for the 1981 Chrysler Corporation K cars (215 OD x 140 ID x 3.4 thick).

For your information, FMSI 8041 has been assigned to this clutch
facing. Thank you for the print.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/erc

E. W. Drislane
Executive Director

FMSI 12799

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

BERGEN MALL OFFICE CENTER

E. 210 ROUTE 4

PARAMUS, N. J. 07652

8041

October 20, 1980

FAX 0689 1/2

10/23/80

Mr. T. Kashiwagi
Akebono America, Inc.
550 Frontage Road, Suite 399
Northfield, Illinois 60093

Dear Mr. Kashiwagi:

We have recently received specifications for the new Chrysler Corporation K cars--the Dodge Aries and the Plymouth Reliant.

When they listed the clutch facing for the 2.2 liter engine, they indicated that Akebono is the supplier under their number 31560-99838. This is a clutch facing 215 mm OD x 140 mm ID with 16 rivets. A copy of the specification form from Chrysler Corporation is enclosed.

As you may be aware, we get our information on brake linings and clutch facings from the friction material manufacturer who supplies the part. All of our assignments are made in this fashion. As Akebono is providing this part, we're asking for a clutch facing print showing basic dimensions and drilling. We do not need proprietary information as such. We will need this information for making an FMSI clutch facing assignment for this car.

Your help in providing this print will be most appreciated.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE



EWD/lmc
Enc.

E. W. Drislane
Executive Director

Specifications Form
Engine Car
SAE (U.S. Customary)

Car Line **DODGE ARIES**

Model Year **1981**

Issued **6-10-80**

Revised (•)

FAX 0689 1/2

Engine Description/Carb.
 Engine Code

**2.2 L (135 in.³)
 2 bbl.**

Drive Units — Clutch (Manual Transmission)

Make & type	AISIN SEIKI, DRY DISC	AUTO PRODUCTS, DRY DISC
Type pressure plate springs	BELLEVILLE	BELLEVILLE
Total spring load — N (lb.)	3880-5250 (872-1180)	4400-6300 (989-1416)
No. of clutch driven discs	ONE	
Material	WOVEN ASBESTOS	
Manufacturer	AKEBONO	FERODO
Part Number	31560-99838	57755
Rivets/Plate	16	
Rivet size	--	7.54 (0.297)
Outside & inside dia.	215 x 140 (8.46 x 5.51)	215 x 152.5 (8.46 x 6.00)
Total eff. area - cm ² (in. ²)	418.2 (64.8)	360.8 (55.9)
Thickness	--	
Engagement Cushion method	WAVE SPRING SEGMENTS	
Release bearing	Type & method of lubrication	ANGULAR CONTACT BALL BEARING LUBED WITH GREASE
Torsional damping	Method: springs, friction material	COIL SPRINGS AND FIBER FRICTION WASHERS

Drive Units — Transmissions

Manual 3-speed (std., opt., N.A.)	N.A.
Manual 4-speed (std., opt., N.A.)	STANDARD
Manual 5-speed (std., opt., N.A.)	N.A.
Manual overdrive (std., opt., N.A.)	N.A.
Automatic (std., opt., N.A.)	OPTIONAL
Automatic overdrive (std., opt., N.A.)	N.A.

Drive Units — Manual Transmission

Number of forward speeds	4	
Transmission ratios	In first	3.29
	In second	1.89
	In third	1.21
	In fourth (Overdrive)	0.88
	In fifth	N.A.
	In overdrive	N.A.
	In reverse	3.14
Synchronous meshing, specify gears	ALL FORWARD GEARS	
Shift lever location	FLOOR	
Lubricant	Capacity — L (pt.)	1.77 (3.75)
	Type recommended	MOPAR DEXRON II AUTOMATIC TRANSMISSION FLUID
	SAE viscosity number	Summer --
		Winter --
		Extreme cold --



AKEBONO AMERICA, INC.

550 Frontage Road, Suite 399
Northfield, Illinois 60093
Phone: (312) 446-3397 • Telex: 28-3518

September 2, 1980
L-394

Mr. Edward W. Drislane
Secretary
F.M.S.I.
Bergen Mall Office Center
E210 Route 4
Paramas, NJ. 07652

Dear Mr. Drislane:

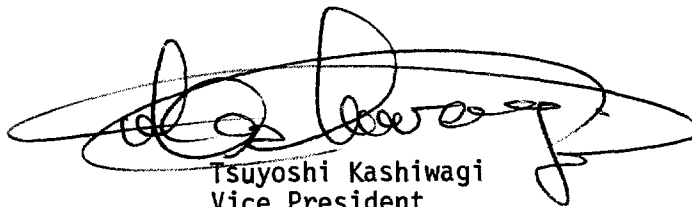
We would appreciate it if you would send us a copy
of drawing (blue print) for each FMSI No. as follows;

FMSI 4515
FMSI 4311
FMSI 4602

These are all Brake Block.

Thank you for your help.

Sincerely yours,



Tsuyoshi Kashiwagi
Vice President

British Council

October 8, 1980

British Friction Materials Council
Baker, Rooke & Amsdons
99, Aldwych
London, WC2B 4JY
England

Gentlemen:

I am writing concerning the Automotive Data Book published by the British Friction Materials Council. The last full British Council Data Book that I have is the 1978 edition. Mr. Briggs indicated that the 1979 Supplement was not printed last year because of some unexpected difficulties that developed at the Council. If you have published a 1980 Data Book, I'd most appreciate it if you could send me two copies.

Sincerely,

FRICITION MATERIALS STANDARDS INSTITUTE

EWD/lmc

E. W. Drislane
Executive Director

FMSI 12803

Akebono

December 31, 1979

Mr. T. Kashiwagi
Akebono International Ltd.
550 Frontage Road
Suite 399
Northfield, IL 60093

Dear Mr. Kashiwagi:

We have had a request for information on Licensee membership from a Japanese applicant. They are Kashiya Press Industry Company, Limited. They have indicated in their application that they manufacture the brake shoes used for disc brake pads. They apparently also manufacture rotors and other brake parts. On their letterhead they also indicate that they make "disc brake pads." Do you know whether they actually manufacture disc brake lining friction material itself, or do they purchase disc brake linings and line them to their steel for assembly?

Assuming they are a brake shoe manufacturer they would be eligible for Licensee Membership in the Institute. However, if they also manufacture brake linings from the basic materials, they should be applying for Regional Membership. I'd very much appreciate if you could give me some background on Kashiya Press Industry Company. Thank you for your help.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/lmc

E. W. Drislane
Executive Director



AKEBONO INTERNATIONAL LIMITED

Head office:

No. 19-5, Nihonbashi, Koami-cho
Chuo-ku, Tokyo, Japan 103
Tel: (03) 668-5171
Telex: 252-3661

Liason office:

200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601
Tel: (312) 861-0241
Telex: 28-3518

July 1, 1979
L-95

Mr. E. J. Drislane
Executive Director
F.M.S.I., Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, NJ 07652

Dear Mr. Drislane:

We would like to ask you to provide us with a couple of
Clutch Facing Drawing as follows;

FMSI No.

1142J
1005A
1056E

Please send us a copy of these 3 drawings together with
a bill so that we will promptly send you a check for it.

Thank you always,

Very truly yours,

T. Kashiwagi
Manager, Chicago Office
Akebono International Ltd.

*Shippin
#504
no charge*

FMSI 12805

**AKEBONO INTERNATIONAL LTD.
CHICAGO OFFICE**

WE HAVE MOVED OUR CHICAGO OFFICE TO

**550 FRONTAGE ROAD
SUITE 399
NORTHFIELD, ILLINOIS 60093**

**(312) 446-3397
TELEX 28-3518**

EFFECTIVE APRIL 10, 1979.

MAILING LIST CHANGE

Member

AKEB & NO

Date

This change effects the following lists:

General Bulletins - Active	☐	Foreign Shoe Bulletins	☐
General Bulletins - Regional	☐	Delegates & Alternates	☐
General Bulletins - Licensees	☐	Annual Fee Billing	☐
Data Book Bulletins	☐	Regular Billing	☐
Shoe Bulletins	☐		

Change List As Follows:

Source of Change: _____

	<u>Name</u>	<u>Date</u>
Requested by:	_____	_____
Rolodex Files (Both) Changed:	_____	_____
Addressograph Plate Changed:	_____	_____
Address/Telephone Directory Changed:	_____	_____

OK
EPC
5/15/79

Change of Address-

April 1979

AKEBONO INTERNATIONAL LIMITED

● Chicago Office

200 E. Randolph St., Suite 5500 - Chicago IL 60604

TEL: (312) 801-0241 - TELEX: 20-0510

● Head Office

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CHICAGO office

550 FRONTAGE ROAD, SUITE 399
NORTHFIELD, ILL. 60093



[Handwritten signature]
[Handwritten signature]



Einstein
USA 15c

F. M. S. I.

Bergen Mall Office Center
E. 210 ROUTE 4
PARAMUS, NJ 07652

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo **February 2, 1979**

Ref. No. 79-11

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

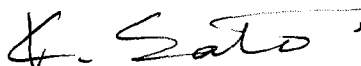
SUBJECT: Remittance Information

Dear Mr. Drislane:

Please find enclose herewith our Cheque No. DDM/120-800319,
amount of US\$425.00, covering your Invoices as follows;

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2814	Annual Fee 2nd Quarter (10/1/78-12/31/78)	\$425.00

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls. Our Cheque No. DDM120-800319
Copy of your Invoice No. 2814

MAILING LIST CHANGE

Member Albano

Date 12-7-78

This change effects the following lists:

General Bulletins - Active	☐	Foreign Shoe Bulletins	☐
General Bulletins - Regional	☒	Delegates & Alternates	☐
General Bulletins - Licensees	☐	Annual Fee Billing	☒
Data Book Bulletins	☒	Regular Billing	☒
Shoe Bulletins	☒		

Change List As Follows:

Discontinue all mailing of Tokyo.
 per all Albano to:
 Albano International Ltd
 200 E. Randolph Ave, Suite 100
 Chicago, IL 60601
 Attn: T. Kashiwagi

Source of Change: Mr. Kashiwagi, Albano

	<u>Name</u>	<u>Date</u>
Requested by:	<u>ER</u>	<u>12-7-78</u>
Rollodex Files (Both) Changed:	<u>ER</u>	<u>12/18/78</u>
Addressograph Plate Changed:	<u>ER</u>	<u>12/18/78</u>
Address/Telephone Directory Changed:	<u>No Change</u>	<u>ER 12/18/78</u>

Akebono

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

October 6, 1978

Mr. T. Kashiwagi
Akebono International Ltd.
200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601

Dear Mr. Kashiwagi:

I had recent correspondence with your Mr. Y. Nobumoto, in Tokyo. In that correspondence I indicated that if Akebono was interested in marketing their clutch facings in the United States using the FMSI® numbering system that they would be billed the same amount that a United States manufacturer (an Active Member) would be billed. I received a reply from Mr. Nobumoto indicating that Akebono would pay this higher fee level.

One of the benefits of the higher fee schedule is eligibility to participate in the Institute's Historical Sales Program. This reporting program is on a quarterly basis and indicates the quantities of brake linings, brake blocks, and clutch facings sold in the United States market. I am sending you a copy of this report as of December 31, 1977. This may be of interest to you.

If you would like to participate in this program and receive the quarterly reports on a regular basis it is necessary that you provide statistics on your sales to our public accountants. For that reason we are enclosing a bulletin that is sent to our members who participate in the historical sales reporting program. If you wish to participate in this program we ask that you send your sales statistics for clutch facings sold by Akebono in the United States market for the first 9 months of 1978 into our accountants by November 15, 1978. If you send in your data you will then automatically receive a copy of the sales statistics for that 9 month period. Participation in this program is entirely optional on your part.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/lmc
CC: Y. Nobumoto, Japan

E. W. Drislane
Executive Director

FMSI 12811

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03) 668-5171

Tokyo September 19, 1978

Ref. No. 78-86

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

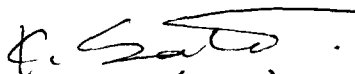
SUBJECT: Remittance Information

Dear Mr. Drislane:

Please find enclose herewith our Cheque No. DDM/120-800173,
amount of US\$750.00, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2661	Annual Fee 4th Quarter (4/1/78-6/30/78)	\$325.00
2785	Annual Fee 1st Quarter (7/1/78-9/31/78)	\$325.00
2796	Annual Fee 1st Quarter (7/1/78-9/30/78)	\$100.00
Total:		<u>\$750.00</u>

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls. Our Cheque No. DDM120-800173
Copy of your Invoice No. 2661, 2785 & 2796

FMSI 12812

Aketomo

April 10, 1978

Akebono Brake Industry Co., Ltd.
19-5 Nihonbashi Koami-cho,
Chuo-ku
Tokyo, Japan 103

Attention: Mr. Y. Nobumoto

Gentlemen:

I have had recent contact with your Office at 200 E Randolph Drive in Chicago, Illinois. In general, most activities with your Office have dealt with clutch facings.

You may be aware that the Friction Materials Standards Institute has maintained a constant dues level for Regional Members over the last 8 years. This annual fee had been U.S. \$1,300, and has been billed in quarterly installments of \$325. Also, this fee is less than that Active Members (U.S. resident members) of the Institute pay.

Some years ago a few Regional Members were interested in marketing their products in the United States. A policy was established that those members would pay a dues level equivalent to that of a U.S. manufacturer. As I believe that Akebono is now marketing clutch facings in the United States using the FMSI numbering system I believe that Akebono should be paying the same fee that the Active Member (U.S. resident member) is paying. If Akebono is participating in the clutch facing category only (that is marketing clutch facings in the United States using the FMSI numbering system) your annual dues would be computed as follows:

Annual basic fee: \$1,500	Annual basic fee: \$1,050
Additional one category--clutch facings--fee: \$650	
	Total Annual fee: \$1,700

I would appreciate it if you would complete the enclosed category filing declaration for Regional Members. This filing is only for the product category that a Regional Member is marketing in the United States. I believe that this would only be clutch facings as far as Akebono is concerned.

Mr. Y. Nobumoto
Akebono Brake Industry Co., Ltd.

-2-

April 10, 1978

Any fee change would not take effect until the 1978-79 fiscal year which starts July 1, 1978. I am sure that you understand that it is only fair that Regional Members marketing products in the United States pay the same dues level that American manufacturers pay for marketing their products in the United States.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

KWD/lmc
Enc.

E. W. Drislane
Executive Director



AKEBONO INTERNATIONAL LIMITED

Head office:

No. 19-5, Nihonbashi, Koami-cho
Chuo-ku, Tokyo, Japan 103
Tel: (03) 668-5171
Telex: 252-3661

Liason office:

200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601
Tel: (312) 861-0241
Telex: 28-3518

March 24, 1978

Mr. E W Drislane
Executive Director
FMSI
Bergen Mall Office Center
E. 210 Route 4
Paramus NJ 07652

Dear Mr. Drislane:

I would like to express my appreciation for your letter dated March 8, 1978. Your information was a great help for me.

I would be very happy if you will like a Japanese Desk Calender enclosed.

Best wishes to you.

Sincerely,

T. Kashiwagi
Akebono International Ltd.
Chicago Office

Akebono

March 8, 1978

Mr. Tsuyoshi Kashiwagi
Akebono International Ltd.
200 E. Randolph—Suite 550
Chicago, Illinois 60601

Dear Mr. Kashiwagi:

Enclosed are examples of the angled counterbore used on most
clutch facings. I show Brass Clutch Facing Rivets (Chicago
Rivet & Machine Co.) and examples of counterbore angles.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/ere
Enc:

E. W. Drislane
Executive Director

FMSI 12816

↓
Akebono

12/16/77

AKEBONO INTERNATIONAL LIMITED

Tsuyoshi KASHIWAGI

MANAGER CHICAGO OFFICE

200E. RANDOLPH DR., SUITE 5500
CHICAGO, ILL. 60601
TEL: (312) 861-0241
TELEX: 28-3518

HEAD OFFICE
NO. 19-5, NIHONBASHI, KOAMI-CHO
CHUO-KU, TOKYO, JAPAN 103
TEL: (03) 668-5171
TELEX: 252-3661

DAIDO OVERSEAS, INC.

150 OVERLOOK AVENUE HACKENSACK, N.J. 07601

JIM (HAJIME) ENDO

201-488-2505



AKEBONO INTERNATIONAL LIMITED

Head office:

No. 19-5, Nihonbashi, Koami-cho
Chuo-ku, Tokyo, Japan 103
Tel: (03) 668-5171
Telex: 252-3661

Liason office:

200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601
Tel: (312) 861-0241
Telex: 28-3518

November 29, 1977

Mr. E. w. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, N.J. 07652

Dear Mr. Drislane;

I have received your letter dated Nov. 14, 1977 and wish to thank you for your very prompt and courteous reply to our announcement.

I would appreciate it if you will furnish us with a copy of clutch facing drawings which we described in the attached list by FMSI number (Total 75 items).

When I receive the copies of drawings and bill, check will be sent to you immediately.

Sincerely yours,

T. Kashiwagi
Manager, Chicago Office
Akebono International Ltd.

CC: Mr. S. Furuya
Akebono International Ltd.
Tokyo, Japan

*See
Shipper # 2571
sent 12/6/77
61 prints*

FMSI 12818

FMSI NO. being required a copy of drawing

648A	993A	1163	1335
736GX	1000	1166A	1365
749A	10000	1166APT	1367
749AX	10000PT	1170A	1372
771A	10007PT	1173	1372B
771AS	1007A	1174	1373
8018	1007PT	1186A	1374
8025A	1015E	1233S	1388
821B	1056	1236B	1409E
831	1056B	1236C	1430A
884	1056F	1236CPT	1513A
884X	1057	1248	1517
900	1057B	1267	1521
9021	1057E	1270	1553
9021E	1057F	1276	1555
905C	1057EPT	1308	
909	1064	1322B	
955A	11004	1325B	
990A	1142H	1329	
990X	1148D	1332	

Total 75 items

Nov. 29, 1977
Akebono International Ltd.
Chicago Office

November 14, 1977

Akebono International Limited
200 E Randolph Drive
Suite 5300
Chicago, Illinois 60601

Attention: Mr. Tsuyoshi Kashiwagi, Manager

Gentlemen:

This is to acknowledge receipt of your letter from Mr. Y. Nobumoto dated June 1, 1977, announcing that Akebono International Limited is establishing an office in Chicago, Illinois.

You recently called concerning purchasing clutch facing prints from the Institute. Should you need these clutch facing prints, please write to the Institute Office indicating which prints you will need. The prints will be sent and charged at \$.75 per print.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

END/lmc

CC: Mr. Y. Nobumoto
Akebono Brake Industry Ltd.
Tokyo, Japan

E. W. Drislane
Executive Director

— Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661

252-3662

Phone: (03)668-5171

Tokyo June 1, 1977

Ref.

Mr. E W Drislane
Friction Materials Standards
Institute, Inc.
E. 210 Rt. 4, Paramus,
NJ 07652

Dear Mr. E W Drislane

As stated in the enclosed "Announcement of Establishing New Company", Akebono International Limited, a wholly owned subsidiary of our company, has just taken over all affairs related to the overseas trade of our products.

This action was taken particularly from the viewpoints of expediting business transactions and to ensure the prompt delivery of ordered products to customers. The new company has its resident office in Chicago, which has opened on June 1, 1977.

I hope that you would render the same cooperation and consideration to Akebono International Limited upon its establishment which you have always given us for many years.

Yours faithfully,


Y. Nobumoto
President

Encl 1: As stated

ANNOUNCEMENT OF ESTABLISHING NEW COMPANY

Inaugural date : June 1, 1977

Company Name : Akebono International Limited

Representative : Yasusada Nobumoto, President

Head Office : 19-5 Nihonbashi Koami-cho, Chuo-ku
Tokyo 103, Japan

Chicago Office : 200 E, Randolph Drive, Suite 5500
Chicago, Ill. 60601, U.S.A.

Telephone; 312-861-0241

Telex ; 28-3518

Manager ; Tsuyoshi Kashiwagi

Stocks : Wholly owned by Akebono Brake
Industry co., Ltd.

Accounting Year : Begins June 1 and ends March 31

Business Activities : Direct, indirect, and other related
business concerning overseas trade
of various brakes, their component
parts, friction materials, and
special metallic materials
manufactured and marketed by Akebono
Brake Industry Co., Ltd. and all
types of automobile parts,
equipment, and devices.

Opening of Business : June 1, 1977



AKEBONO INTERNATIONAL LIMITED

Head office:

No. 19-5, Nihonbashi, Koami-cho
Chuo-ku, Tokyo, Japan 103
Tel: (03) 668-5171
Telex: 252-3661

Liason office:

200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601
Tel: (312) 861-0241
Telex: 28-3518

March 24, 1978

Mr. E W Drislane
Executive Director
FMSI
Bergen Mall Office Center
E. 210 Route 4
Paramus NJ 07652

Dear Mr. Drislane:

I would like to express my appreciation for your letter dated March 8, 1978. Your information was a great help for me.

I would be very happy if you will like a Japanese Desk Calender enclosed.

Best wishes to you.

Sincerely,

T. Kashiwagi
Akebono International Ltd.
Chicago Office

Akebono

March 8, 1978

Mr. Tsuyoshi Kashiwagi
Akebono International Ltd.
200 E. Randolph—Suite 550
Chicago, Illinois 60601

Dear Mr. Kashiwagi:

Enclosed are examples of the angled counterbore used on most clutch facings. I show Brass Clutch Facing Rivets (Chicago Rivet & Machine Co.) and examples of counterbore angles.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc
Enc:

E. W. Drislane
Executive Director

FMSI 12824

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo March 6, 1978

Ref. No. 78-20

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

SUBJECT: Remittance Information

Dear Mr. Drislane:

Please find enclosed herewith our Cheque No. DDM120/700502,
amount of US\$325.00, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2597	Annual Fee 3rd Quarter (1/1/78- 3/31/78)	\$325.00

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls. Our Cheque No. DDM120/700502
Copy of your Invoice No. 2597

↓
Akebono

12/16/77

AKEBONO INTERNATIONAL LIMITED

Tsuyoshi KASHIWAGI

MANAGER CHICAGO OFFICE

**200E. RANDOLPH DR., SUITE 5500
CHICAGO, ILL. 60601
TEL: (312) 861-0241
TELEX: 28-3518**

**HEAD OFFICE
NO. 19-5, NIHONBASHI, KOAMI-CHO
CHUO-KU, TOKYO, JAPAN 103
TEL: (03) 668-5171
TELEX: 252-3661**

DAIDO OVERSEAS, INC.

150 OVERLOOK AVENUE HACKENSACK, N. J. 07601

JIM (HAJIME) ENDO

201-488-2505

FMSI 12826



AKEBONO INTERNATIONAL LIMITED

Head office:

No. 19-5, Nihonbashi, Koami-cho
Chuo-ku, Tokyo, Japan 103
Tel: (03) 668-5171
Telex: 252-3661

Liason office:

200 E. Randolph Dr., Suite 5500
Chicago, Illinois 60601
Tel: (312) 861-0241
Telex: 28-3518

November 29, 1977

Mr. E. w. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus, N.J. 07652

Dear Mr. Drislane;

I have received your letter dated Nov. 14, 1977 and wish to thank you for your very prompt and courteous reply to our announcement.

I would appreciate it if you will furnish us with a copy of clutch facing drawings which we described in the attached list by FMSI number (Total 75 items).

When I receive the copies of drawings and bill, check will be sent to you immediately.

Sincerely yours,

T. Kashiwagi
Manager, Chicago Office
Akebono International Ltd.

CC: Mr. S. Furuya
Akebono International Ltd.
Tokyo, Japan

*See
shipper # 2571
sent 12/6/77
61 prints*

FMSI 12827

FMSI NO. being required a copy of drawing

648A	993A	1163	1335
736GX	1000	1166A	1365
749A	10000	1166APT	1367
749AX	10000PT	1170A	1372
771A	10007PT	1173	1372B
771AS	1007A	1174	1373
8018	1007PT	1186A	1374
8025A	1015E	1233S	1388
821B	1056	1236B	1409E
831	1056B	1236C	1430A
884	1056F	1236CPT	1513A
884X	1057	1248	1517
900	1057B	1267	1521
9021	1057E	1270	1553
9021E	1057F	1276	1555
905C	1057EPT	1308	
909	1064	1322B	
955A	11004	1325B	
990A	1142H	1329	
990X	1148D	1332	

Total 75 items

Nov. 29, 1977
Akebono International Ltd.
Chicago Office

November 14, 1977

Akebono International Limited
200 E Randolph Drive
Suite 5500
Chicago, Illinois 60601

Attention: Mr. Tsuyoshi Kashiwagi, Manager

Gentlemen:

This is to acknowledge receipt of your letter from Mr. Y. Nobumoto dated June 1, 1977, announcing that Akebono International Limited is establishing an office in Chicago, Illinois.

You recently called concerning purchasing clutch facing prints from the Institute. Should you need these clutch facing prints, please write to the Institute Office indicating which prints you will need. The prints will be sent and charged at \$.75 per print.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.

EWD/lmc

CC: Mr. Y. Nobumoto
Akebono Brake Industry Ltd.
Tokyo, Japan

E. W. Drislane
Executive Director

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLEADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo November 8, 1977

Ref. No. 77-108

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

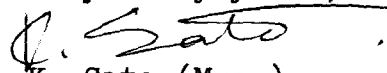
SUBJECT: Remittance Information

Dear Mr. Drislane;

Please find enclose herewith our Cheque No. DDM120/700366,
amount of US\$975.00, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2368	Annual Fee 4th Quarter(4/1/77- 6/30/77)	\$325.00
2455	Annual Fee 1st Quarter(7/1/77- 9/30/77)	\$325.00
2520	Annual Fee 2nd Quarter(10/1/77- 12/31/77)	\$325.00
Total:		\$975.00

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls. Our Cheque No. DDM120/700366
Copy of your Invoice No. 2368, 2455 & 2520

FMSI 12830

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo June 1, 1977

Ref.

Mr. E W Drislane
Friction Materials Standards
Institute, Inc.
E. 210 Rt. 4, Paramus,
NJ 07652

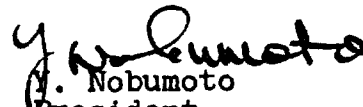
Dear Mr. E W Drislane

As stated in the enclosed "Announcement of Establishing New Company", Akebono International Limited, a wholly owned subsidiary of our company, has just taken over all affairs related to the overseas trade of our products.

This action was taken particularly from the viewpoints of expediting business transactions and to ensure the prompt delivery of ordered products to customers. The new company has its resident office in Chicago, which has opened on June 1, 1977.

I hope that you would render the same cooperation and consideration to Akebono International Limited upon its establishment which you have always given us for many years.

Yours faithfully,


Nobumoto
President

Encl 1: As stated

FMSI 12831

ANNOUNCEMENT OF ESTABLISHING NEW COMPANY

Inaugural date : June 1, 1977

Company Name : Akebono International Limited

Representative : Yasusada Nobumoto, President

Head Office : 19-5 Nihonbashi Koami-cho, Chuo-ku
Tokyo 103, Japan

Chicago Office : 200 E, Randolph Drive, Suite 5500
Chicago, Ill. 60601, U.S.A.

Telephone; 312-861-0241

Telex ; 28-3518

Manager ; Tsuyoshi Kashiwagi

Stocks : Wholly owned by Akebono Brake
Industry co., Ltd.

Accounting Year : Begins June 1 and ends March 31

Business Activities : Direct, indirect, and other related
business concerning overseas trade
of various brakes, their component
parts, friction materials, and
special metallic materials
manufactured and marketed by Akebono
Brake Industry Co., Ltd. and all
types of automobile parts,
equipment, and devices.

Opening of Business : June 1, 1977

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo March 18, 1977

Ref. No. 77-45

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



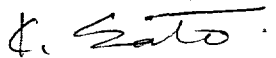
SUBJECT: Remittance Information

Dear Mr. Drislane:

Please find enclose herewith our Cheque No. DDM120/600252,
amount of US\$650.00, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2241	Annual Fee 2nd Quarter(10/1/76- 12/31/76)	\$325.00
2312	Annual Fee 3rd Quarter(1/1/77- 3/31/77)	\$325.00
Total:		<u>\$650.00</u>

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls. Our Cheque No. DDM120/600252
Copy of your Invoice No. 2241 & 2312

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03) 668-5171

Tokyo December 21, 1976

Ref. No. 76-136

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

SUBJECT: Remittance Information

Dear Mr. Drislane:

Please find enclosed herewith our cheque No. DDM02/600156,
amount of US\$660.02, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2116	Annual Fee 4th Quarter (4/1/76- 6/30/76)	\$325.00
2166	Annual Fee 1st Quarter (7/1/76- 9/30/76)	\$325.00
2148	1976 Brake Shoe Identification Catalogs	5.50
	1976 Supplement to 1975 Automotive Data Book	2.26
	Postage	2.26
Total:		\$660.02

Very Truly yours,


K. Sato (Mrs.)
Secretary

encls.
Our Cheque No. DDM02/600156
Copy of your Invoice No. 2116 2166 & 2148

FMSI 12834

INVOICE

FRICITION MATERIALS STANDARDS INSTITUTE
E-210 ROUTE 4 • PARAMUS, NEW JERSEY 07652 • PHONE (201) 845-0440

SOLD TO

Akebono Brake Industry Co., Ltd.
 19-5 Nihonbashi Koami-cho,
 Chuo-ku
 Tokyo, Japan 103
 Att: Mr. Furuya

SHIPPED TO

SAME

6/7/76	6/7/76	surface	Ex-127 2/13 Ex-129 3/24	NET	No 002148
20 copies	1976 Brake Shoe Identification Catalog @275.00/M			\$5.50	
20 copies	1976 Supplement to 1975 Automotive Data Book @113.10/M			2.26	
	Postage			<u>2.26</u>	
	U. S. Dollars				\$10.02
					660.02

Form NV-875 © The Drawing Board Inc., Box 505 Dallas, Texas

June 2, 1976

Akebono Brake Industry Co., Ltd.
19-5 Nihonbashi Koami-cho
Chuo-ku
Tokyo, Japan 103

Attention: Mr. Shunji Furuya

Dear Mr. Furuya:

Thank you for your specification sheets for the two clutch facings
for Dodge Colt, Plymouth Arrow:

<u>Number</u>	<u>Size</u>
997918	200 x 130 x 3.5
997919	215 x 150 x 3.5

To release these clutch facings, I would need the following:

- Drill and counterbore diameters for rivet
- Number and location of rivet holes
- Number of holes
- Pitch circle diameter for locating holes
- Spacing (° degrees or millimeters) of holes.

If you have this information, it would be very much appreciated.

Sincerely,

EWD/lmc

E. W. Drislane
Executive Director

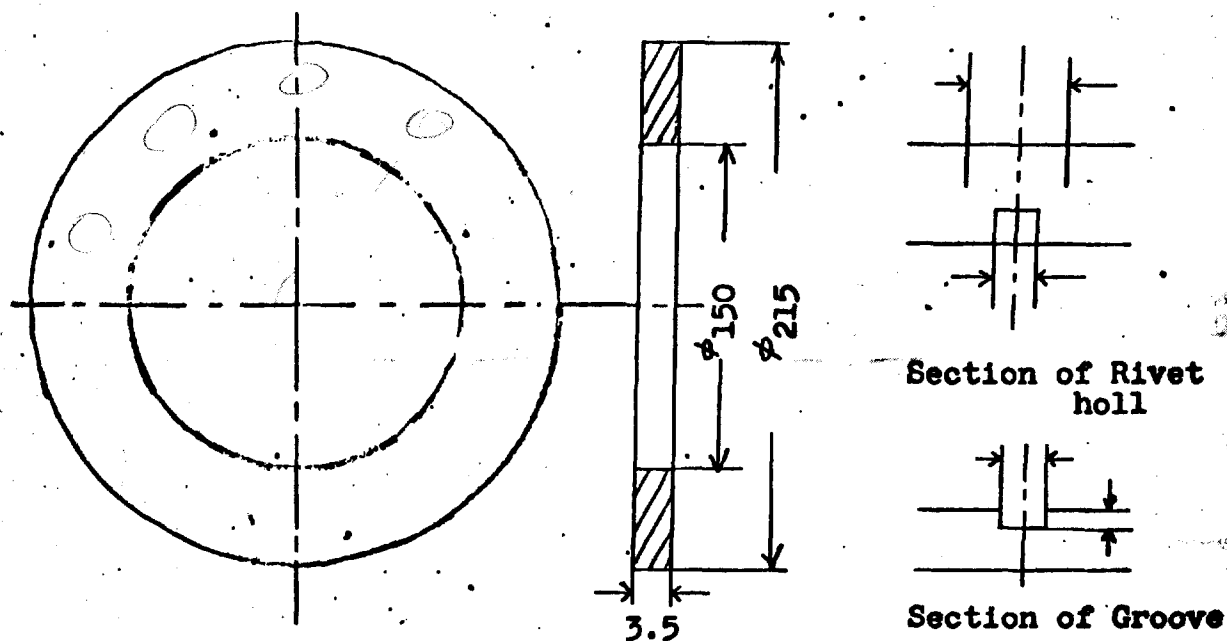
Get Challen } New
Sappor }

AKEBONO BRAKE IND. CO., LTD.
April 17, 1976

DRAWING OF
CLUTCH FACING

Classified No. 997919

Part No. 997919



Car Maker	MITSUBISHI
Model	DODGE COLT, PLYMOUTH ARROW
Size (mm) (O·D × I·D × THICKNESS)	215 × 150 × 3.5
Clearance (mm) (O·D, I·D, THICKNESS)	±1.0, ±0.8, ±0.1
Material	A-50, SF105M

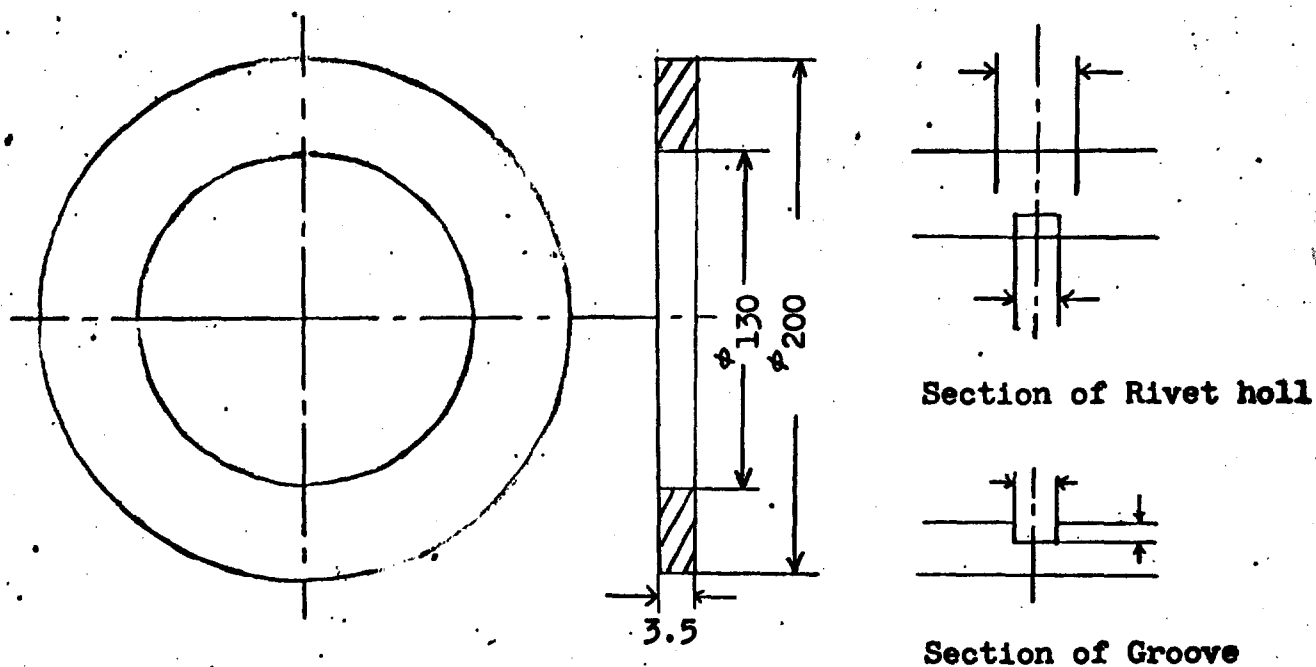
REMARKS: O·D ; Outside Diameter
I·D ; Inside Diameter

AKEBONO BRAKE IND. CO., LTD.
April 17, 1976

DRAWING OF
CLUTCH FACING

Classified No. 997918

Part No. 997918



Car Maker	MITSUBISHI
Model	DODGE COLT, PLYMOUTH ARROW
Size (mm) (O·D × I·D × THICKNESS)	200 × 130 × 3.5
Clearance (mm) (O·D , I·D , THICKNESS)	± 1.0 , ± 0.8 , ± 0.1
Material	A-50, SF105M

REMARKS: O·D ; Outside Diameter
I·D ; Inside Diameter

July, 1975

APPLICATION LIST OF BRAKE LINING & CLUTCH FACING FOR JAPANESE TRUCKS

AKEBONO BRAKE IND. CO., LTD.

BRAKE LINING DATA FOR TRUCK

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (W×THK-L) (mm)	F or R
ISUZU	TR	9-47115 590-0	75 × 8.1 - 317	F & R
	TR	9-47115 589-0	75 × 8.1 - 317	F & R
	TX	9-47115 578-0	75 × 10 - 414	F
	TX	9-47115 580-0	100 × 12 - 410	R
	SBR VBR	9-47115 635-0	90 × 8.1 - 331	F
	SBR VBR	9-47115 636-0	100 × 8.1 - 331	R
	TD TMK BU	9-47115 582-0	105 × 10 - 378	F
	TD TMK BU	9-47115 584-0	140 × 12 - 374	R
	TD TMK SP	1-47115 036-0	140 × 12 - 374	F
	TD TMK SP	1-47115 040-0	178 × 14.5 - 192.5	R
NISSAN DIESEL	TC81 series	41039-90219	110 × 12 - 394	F
	6CKT 6CT	41039-90215	110 × 18 - 194	F
	CD31 PT80	41039-90213	130 × 15 - 184	F
	CD31 PT80	41039-90213	130 × 15 - 184	F
	TC80 C81	41039-90025	130 × 15 - 184	F
	TC80 C81	44066-90025	180 × 18 - 194	R
	CD31 PT80 TC81	44066-90025	180 × 18 - 194	R
	6TC	36119-90001	75 × 6 - 382	C
	VBR	36119-90003	100 × 6.5 - 339	C
	V8RA	36119-90006	75 × 6.1 - 339	C
MITSUBISHI	TC650	MC821170	90 × 12 - 151	F
	TC650	MC821172	115 × 12 - 151	R
	MR620	MC820360	80 × 10 - 366	F
	B622B	MC820360	80 × 10 - 366	F
	MR620	MC820348	100 × 10 - 366	R
	B622B	MC820348	100 × 10 - 366	R
	MR520 B81OK T410 T480	12028-27801	100 × 12 - 199	F
	MR520 B81OK T410 T480	12022-27801	150 × 12 - 187	F
	MR520 B81OK T410 T480	12028-27503	100 × 10 - 408	R
	MR520 B81OK T410 T480	12022-27503	150 × 10 - 384	R
	MR520 B81OK T410 T480	12028-27701	100 × 12 - 199	F
	MR520 B81OK T410 T480	12022-27701	150 × 12 - 187	F
	MR410	12028-37501	125 × 16 - 196	R
	TC330	12028-37501	125 × 16 - 196	F
	MR410	12022-37501	190 × 16 - 184	R
	TC330	12022-37501	190 × 16 - 184	R
	TC330	12022-37501	190 × 16 - 184	R
	TC330	12022-37501	190 × 16 - 184	R
	TC330	12022-37501	190 × 16 - 184	R
	TC330	12022-37501	190 × 16 - 184	R
FUSO	FUSO 3.5t	102978	75 × 7.8 - 317	F & R
	FUSO 8t	14428-05104	100 × 16 - 195	F
	FUSO 8t	14428-05104	100 × 16 - 195	F
	FUSO 8t	14822-07603	190 × 16.5 - 186	R
	FUSO 8t	14822-07603	190 × 16.5 - 186	R

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (W×THK-L) (mm)	F or R
MITSUBISHI	T653 BG T653ZR	'73-	MC821396	F
	T330 - 386	'71-	44420-44181	C
	B810 - 915 T800 - 95	'70-	44420-44181	C
	T620 - 626 MR620	'71-	ME620372	C
HINO	KL all vehicles (except KL500)	2445356520	90 × 8.1 - 318	F
	'70-			
	KL all vehicles (except KL500)	2445356920	100 × 8.1 - 318	R
	'70-			
	KB KA KF	045061110	102 × 12.7 - 198	F
	ZM	045061120	102 × 12.7 - 198	F
	KB KA KF	045061130	178 × 12.7 - 198	R
	ZM	045061140	178 × 12.7 - 198	R

REMARKS:

- F = Front
- R = Rear
- C = Center brake lining
- W = Width
- THK = Thickness
- L = Inner length

CLUTCH FACING DATA FOR TRUCK

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (O.D×I.D×THK) (mm)
ISUZU	TR	- '70 A150	300 × 190 × 4
	TR	'71-'72 A150	300 × 190 × 4
	TX	'70- 9312460810	325 × 210 × 4
	SBR VBR	'73- A150	300 × 190 × 4
	TD TMK BU	- '72 9312460920	410 × 260 × 4
	TD TMK SP	'73- 9312460920	410 × 260 × 4
NISSAN DIESEL	TC81 series	'71- A58	350 × 220 × 5
	6CKT 6CT	- '71 A142	410 × 270 × 4
	CD31 PT80	'70- 31560-99145	410 × 252 × 5
	T80 C81	- '71 A58	350 × 220 × 5
	CD31	'70- 31560-99145	410 × 252 × 5
	TC81	'70- A58	350 × 220 × 5
	6TC	- '71 A142	410 × 270 × 4
	V8R V8RA	'71- A142	457 × 280 × 5.5
MITSUBISHI	T650	- '71 A150	300 × 190 × 4
	MR620	- '72 A150	300 × 190 × 4
	B622B	'70- A150	300 × 190 × 4
	MR520 B810K T410) T480)	'71- 10002-13500	380 × 240 × 4
	MR410	- '72 10002-13500	380 × 240 × 4
	T330	'71- 10002-13500	380 × 240 × 4
	T951	'71- A154	400 × 252 × 5
	FUSO 3.5t	- '73 A179	275 × 175 × 3.5
	FUSO 8t	'70- A154	400 × 252 × 5
	T330 - 386	'71- 10002-13500	380 × 240 × 4
	B810 - 915)	'70- A154	400 × 252 × 5
	T800 - 95	'70- A154	400 × 252 × 5
	T620 - 626	'71- A150	300 × 190 × 4
HINO	KL all vehicles	'70- 31561-99120	300 × 190 × 4
	KL300 KL360 KL500 KL560	'70- 31561-99115	380 × 220 × 5
	KB	'70- 31560-99117	410 × 252 × 5
	KA KF	'70- 31560-99134	430 × 252 × 5
	ZM	'70- 31560-99134	430 × 252 × 5

REMARKS: O.D = Outer Diameter
I.D = Inner Diameter
THK = Thickness

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

AKEBONO BRAKE INDUSTRY CO., LTD.

19-5 Nihonbashi Koami-cho, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo March 4, 1976

Ref. No. 76-39

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

SUBJECT: Remittance Information

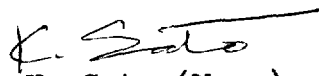
Dear Mr. Drislane:

Please find enclosed herewith our Cheque No. DDM02/500185,
amount of US\$330.10, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
2022	Annual Fee 3rd Quarter (1/1/76- 3/31/76)	\$325.00
2095	1975 Brake Block Identification Catalogs	3.88
"	Postage	1.22

Total: \$330.10

Very truly yours,


K. Sato (Mrs.)
Secretary

encls.

Our Cheque No. DDM02/500185
Copy of your Invoice No. 2022 & 2095

FMSI 12843

Our new address as from
January 1, 1976 is
19-5 Nihonbashi Kozai-cho,
Chuo-ku, Tokyo, Japan 103

— : Products : —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

AKEBONO BRAKE INDUSTRY CO., LTD.

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Phone: 270-9968

No. 2, 1-chome, Nihonbashi Honcho, Chuo-ku, Tokyo, Japan

DATE: February 17, 1976

NO: EX-128

PURCHASE ORDER

TO: Mr. E. W. Drislane
Executive Director
Friction Materials
Standards Institute, Inc.
E-210 Route #4
Paramus, N. J. 07652

ITEM NO.	PARTS NO.	DESCRIPTION	QTY	UNIT PRICE	AMOUNT
		1975 Brake Block Identification Catalog	20 copies	\$0.194	\$3.88
		Shipper # 2095 Sent 2/20/76 "surface mail" - Books Customs sticker attached		Postage	388 122 510

DELIVERY DATE:

REMARKS: Receipt should be acknowledged on duplicate copy.

V. H. H. H.

FMSI 12844

MAILING LIST CHANGE

Member Akebura

Date 1/29/76

This change effects the following lists:

General Bulletins - Active	☐	Foreign Shoe Bulletins	☐
General Bulletins - Regional	☒	Delegates & Alternates	☐
General Bulletins - Licensees	☐	Annual Fee Billing	☒ OK
Data Book Bulletins	☒	Regular Billing	☒ OK
Shoe Bulletins	☒		OK

Change List As Follows:

Change Akebura address to:

Akebura Brake Industry Co., Ltd
19-5 Nishimbashi Koami-cho
Chuo-ku
Tokyo, Japan 103
att: Mr. Y. Nobumoto

Source of Change: Akebura letterhead 1/24/76

	<u>Name</u>	<u>Date</u>
Requested by:	<u>Ans</u>	<u>1/29/76</u>
Rolodex Files (Both) Changed:	<u>ERC</u>	<u>1/29/76</u>
Addressograph Plate Changed:	<u>ERC</u>	<u>1/29/76</u>
Address/Telephone Directory Changed:	<u>ERC</u>	<u>1/29/76</u>

—: Products: —

DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

No. 2, 1-chome, Nihonbashi Honcho, Chuo-ku, Tokyo, Japan

Our new address as from
January 1, 1976 is
10-1 Nihonbashi Kojimachi-cho,
Chuo-ku, Tokyo, Japan 105

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Phone: 270-9968

DATE: February 13, 1976

NO: EX-127

PURCHASE ORDER

TO:

Mr. E. W. Drislane
Executive Director
Friction Materials
Standards Institute, Inc.
E-210 Route #4
Paramus, N. J. 07652

ITEM NO.	PARTS NO.	DESCRIPTION	QTY	UNIT PRICE	AMOUNT
		The 1976 supplement to the 1975 Automotive Data book	20	\$0.1131	\$2.27
		<i>Total - \$10.02</i>			

*Shipped
sent 6/8/76*

*"Book" mail
surface mail*

DELIVERY DATE:

REMARKS: Receipt should be acknowledged on duplicate copy.

FMSI 12846

V. H. H. H.

—: Products:—

DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

AKEBONO BRAKE INDUSTRY CO., LTD.

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Phone: 270-9968

No. 2, 1-chome, Nihonbashi Honcho, Chuo-ku, Tokyo, Japan

DATE: March 24, 1976

NO: EX-129

PURCHASE ORDER

TO: Mr. E.W. Drislane
Executive Director
Friction Materials
Standards Institute, Inc.
E-210 Route #4
Paramus, N. J. 07652

ITEM NO.	PARTS NO.	DESCRIPTION	QTY	UNIT PRICE	AMOUNT
		1976 BRAKE SHOE IDENTIFICATION CATALOG	20	@\$0.305	\$6.10
Shipped post # 2148 6/8/76 "Bonds" Friction mat					

DELIVERY DATE:

REMARKS : Receipt should be acknowledged on duplicate copy.

FMSI 12847

V. Suzuki

— Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

19-5xx Nihonbashi Koami-cho, ~~KOAMI~~, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03) 668-5171

Tokyo **January 24, 1976**

Ref. No. 76-4

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

Subject: Remittance Information

Dear Mr. Drislane:

Please find enclosed herewith our Cheque No. DDM02/500152,
amount of US\$991.47, covering your Invoices as follows:

<u>Invoice No.</u>	<u>Description</u>	<u>Amount</u>
1752	Annual Fee 4th Quarter (4/1/75- 6/30/75)	\$325.00
1813	1975 Auto Data Book & others	11.64
1899	Annual Fee 1st Quarter (7/1/75-9/30/75)	325.00
1982	1975 Brake Block Identification Catalogs	4.83
1958	Annual Fee 2nd Quarter (10/1/75-12/30/75)	325.00

Total: \$991.47

Very truly yours,


K. Sato (Mrs.)
Secretary

Incls.

FMSI 12848

Akebono

February 2, 1976

Mr. Y. Nobumoto
Akebono Brake Industry Co., Ltd.
19-5 Nihonbashi Kojima-cho,
Chuo-ku
Tokyo, Japan 103

Dear Mr. Nobumoto:

On January 27, 1976 I wrote concerning the balance due the Institute.
On January 28, 1976, we received your check. Thank you.

Please disregard our letter of January 27, 1976.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc

E. W. Drislane
Executive Director

Akebono

January 27, 1976

Mr. Y. Nebumoto
Akebono Brake Industry Co., Ltd.
2-3 Nihonbashi Kojima-cho,
1-chome, Chuo-ku
Tokyo, Japan 103

Dear Mr. Nebumoto:

I'm writing at this time concerning the balance due the Institute, as shown on the enclosed copy of our receivable card.

Yours is our only account that has not paid fees for the last fiscal year—for the quarter April 1, 1975-June 30, 1975. Payments for the following quarters also are due.

I'd very much appreciate payments on this account, or at least word as to your plans. If there are some problems I could discuss these with our Board of Directors.

In any event, we very much value Akebono as a Regional Member and ask that you let me know your plans on your membership.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

END/erc
Enclosure:

E. W. Drislane
Executive Director

— : Products : —

DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

1-2-3, Nihonbashi Koamicho, Chuo-ku, Tokyo, Japan

CABLEADDRESS:
"BRAKEAKEBONO"
TOKYO

TelexNo. 252-3661

Phone: 668-5171

Tokyo September 22, 1975

Ref. 50-097

Mr. E. W. Drislane
Executive Director
Friction Materials
Standards Institute. Inc.
E-210 Route #4
Paramus, N.J. 07652

aw

Dear Mr. Drislane:

May we thank you for your letter of August 28,
1975.

Enclosed please find our purchase order sheet in
duplicate for 1975 Brake Block Identification
catalog.

With our best regards.

Sincerely yours,

Shunji Furuya
Shunji Furuya
Export Manager
Akebono Brake Ind.Co.,Ltd.

Encl.

SF/kt

— Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

2-3 Nihonbashi Koami-cho, 1-chome, Chuo-ku, Tokyo Japan 103

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo August 9, 1975

Ref. 50-082

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4,
Paramus. N.J. 07652
U.S.A.

End

Dear Mr. Drislane:

In response to your requests concerning brake lining and clutch facing data for popular Japanese trucks from 1970 on, we are sending you enclosed herewith an application list covering trucks of Hino, Nissan, Isuzu, and of Mitsubishi.

Should you need any further information, please feel free to write to us again.

Sincerely yours,

Shunji Furuya

Shunji Furuya
Export Manager
Akebono Brake Ind. Co., Ltd.

cc: Mr. Y. Nobumoto, President

SF/kt

FMSI 12852

July, 1975

APPLICATION LIST OF BRAKE LINING & CLUTCH FACING FOR JAPANESE TRUCKS

AKEBONO BRAKE IND. CO., LTD.

BRAKE LINING DATA FOR TRUCK

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (W×THK-L) (mm)	F or R
ISUZU	TR	9-47115 590-0	75 × 8.1 - 317	F & R
	TR	9-47115 589-0	75 × 8.1 - 317	F & R
	TX	9-47115 578-0	75 × 10 - 414	F
	TX	9-47115 580-0	100 × 12 - 410	R
	SBR VBR	9-47115 635-0	90 × 8.1 - 331	F
	SBR VBR	9-47115 636-0	100 × 8.1 - 331	R
	TD TMK BU	9-47115 582-0	105 × 10 - 378	F
	TD TMK BU	9-47115 584-0	140 × 12 - 374	R
	TD TMK SP	1-47115 036-0	140 × 12 - 374	F
	TD TMK SP	1-47115 040-0	178 × 14.5 - 192.5	R
NISSAN DIESEL	TC81 series	41039-90219	110 × 12 - 394	F
	6CKT 6CT	41039-90215	110 × 18 - 194	F
	CD31 PT80	41039-90213	130 × 15 - 184	F
	CD31 PT80	41039-90213	130 × 15 - 184	F
	T80 C81	41039-90025	130 × 15 - 184	F
	T80 C81	44066-90025	180 × 18 - 194	R
	CD31 PT80 TC81	44066-90025	180 × 18 - 194	R
	6TC	36119-90001	75 × 6 - 382	C
	V8R	36119-90003	100 × 6.5 - 339	C
	V8RA	36119-90006	75 × 6.1 - 339	C
MITSUBISHI	T650	MC821170	90 × 12 - 151	F
	T650	MC821172	115 × 12 - 151	R
	MR620	MC820360	80 × 10 - 366	F
	B622B	MC820360	80 × 10 - 366	F
	MR620	MC820348	100 × 10 - 366	R
	B622B	MC820348	100 × 10 - 366	R
	MR520 B810K T410 T480	12028-27801	100 × 12 - 199	F
	MR520 B810K T410 T480	12022-27801	150 × 12 - 187	F
	MR520 B810K T410 T480	12028-27503	100 × 12 - 187	R
	MR520 B810K T410 T480	12022-27503	150 × 10 - 408	F
	MR520 B810K T410 T480	12028-27701	100 × 12 - 199	R
	MR520 B810K T410 T480	12022-27701	150 × 12 - 187	F
	MR410	12028-37501	125 × 16 - 196	R
	T330	12028-37501	125 × 16 - 196	F
	MR410	12022-37501	190 × 16 - 184	R
	T951	12022-37501	190 × 16 - 184	R
	FUSO 3.5t	102978	75 × 7.8 - 317	F & R
	FUSO 8t	14428-05104	100 × 16 - 195	F
	FUSO 8t	14822-07603	190 × 16.5 - 186	R

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (W×THK-L) (mm)	F or R
MITSUBISHI	T653 BG T653ZR	MC821396	95 × 11.3 - 143	F
	T330 - 386	44420-44181	75 × 6 - 339	C
	B810 - 915 T800 - 95	44420-44181	75 × 6 - 339	C
	T620 - 626 MR620	ME620372	60 × 8 - 700	C
HINO	KL all vehicles (except KL500)	2445356520	90 × 8.1 - 318	F
	KL all vehicles (except KL500)	2445356920	100 × 8.1 - 318	R
	KB KA KF	045061110	102 × 12.7 - 198	F
	ZM	045061120	102 × 12.7 - 198	F
	KB KA KF	045061130	178 × 12.7 - 198	R
	ZM	045061140	178 × 12.7 - 198	R

REMARKS:

F = Front
R = Rear
C = Center brake lining
W = Width
THK = Thickness
L = Inner length

CLUTCH FACING DATA FOR TRUCK

MANUFACTURER	MODEL & YEAR	GENUINE P/N	SIZE (O.D×I.D×THK) (mm)
ISUZU	TR	A150	300 × 190 × 4
	TR	A150	300 × 190 × 4
	TX	9312460810	325 × 210 × 4
	SBR VBR	A150	300 × 190 × 4
	TD TMK BU	9312460920	410 × 260 × 4
	TD TMK SP	9312460920	410 × 260 × 4
NISSAN DIESEL	TC81 series	A58	350 × 220 × 5
	6CKT 6CT	A142	410 × 270 × 4
	CD31 PT80	31560-99145	410 × 252 × 5
	T80 C81	A58	350 × 220 × 5
	CD31	31560-99145	410 × 252 × 5
	TC81	A58	350 × 220 × 5
	6TC	A142	410 × 270 × 4
	V8R V8RA		457 × 280 × 5.5
MITSUBISHI	T650	A150	300 × 190 × 4
	MR620	A150	300 × 190 × 4
	B622B	A150	300 × 190 × 4
	MR520 B810K T410 T480	10002-13500	380 × 240 × 4
	MR410	10002-13500	380 × 240 × 4
	T330	10002-13500	380 × 240 × 4
	T951	A154	400 × 252 × 5
	FUSO 3.5t	A179	275 × 175 × 3.5
	FUSO 8t	A154	400 × 252 × 5
	T330 - 386	10002-13500	380 × 240 × 4
	B810 - 915	A154	400 × 252 × 5
	T800 - 95	A154	400 × 252 × 5
	T620 - 626	A150	300 × 190 × 4
HINO	KL all vehicles	31561-99120	300 × 190 × 4
	KL300 KL360 KL500 KL560		
	KB	31561-99115	380 × 220 × 5
	KA KF	31560-99117	410 × 252 × 5
	ZM	31560-99134	430 × 252 × 5

REMARKS: O.D = Outer Diameter
I.D = Inner Diameter
THK = Thickness

Akebono

TELEPHONE (201) 845-0440

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

July 10, 1975

Akebono Brake Industry Co., Ltd.
2-3 Nihonbashi Koami-cho,
1-chome, Chuo-ku
Tokyo, Japan 103

Att: Mr. Y. Nobumoto

Dear Mr. Nobumoto:

Over the last ten to twenty years, motor vehicles manufactured in Japan have received wide acceptance in the world markets, and in particular the Western Hemisphere.

We now include information on popular Japanese passenger cars, particularly those sold in the North American market: Datsun, Honda, Mazda and Toyota. We have been asked to expand our coverage to include Japanese Trucks such as Hino, Nissan, Isuzu, and Mitsubishi.

We are asking if you can give us brake lining and clutch facing data (application data and prints) for popular Japanese trucks from 1970 on.

Your help in providing us this information will be greatly appreciated. The data we are able to present to all our members comes primarily from several members who provide original equipment brake linings and clutch facings.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/erc

E. W. Drislane
Executive Director

FMSI 12857

— : Products: —
DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
FRICTION MATERIALS

↓
AKEBONO BRAKE INDUSTRY CO., LTD.

2-3 Nihonbashi Koami-cho, 1-chome, Chuo-ku, Toykyo Japan 103

CABLEADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex: 252-3661
252-3662

Phone: (03)668-5171

Tokyo **February 19, 1975**

Ref. No. 75-17

Mr. E. W. Drislane
Executive Director
Friction Materials Standards Institute, Inc.
E-210 Route 4
Paramus, New Jersey 07562

Subject: Remittance Information

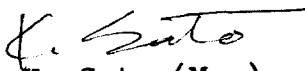
Dear Mr. Drislana,

Please find enclose herewith our Cheque No. DDMO2/400212,
amount of US\$650.00, covering your Invoices as follows:

1. Invoice No. 1546
2nd Quarter Annual Fee
(10/1/74 - 12/31/74) US\$325.00
2. Invoice No. 1661
3rd Quarter Annual Fee
(1/1/75 - 4/1/75) US\$325.00

Total: US\$650.00

Very truly yours,


K. Sato (Mrs)
Secretary

Incls.

Copy of your Invoices
Our Cheque No. DDMO2/400212

Akebono

January 18, 1972

Mr. Kazuhiko Aoki,
Managing Director
Headquarters of Engineering
Akebono Brake Industry Co., Ltd.
1-2-3 Nihonbashi Koamicho
Chuo-ku, Tokyo, Japan

Dear Mr. Aoki:

This refers to your letter of December 21, 1972 concerning the meaning of "grandfathering."

"Grandfathering" concerns itself with what happens to existing brake linings now in use when new rules or regulations are published. For example, let us say that Bendix had a brake lining approved in New York State six years ago. What happens to this old approved brake lining when a new set of rules are established? Since several states now require certification through AAMVA, will they require all the old brake linings, originally certified by New York, to be recertified?

"Grandfathering" means that the older brake linings already certified in New York or North Carolina will not require all new tests and a \$250 fee. Instead, the AAMVA will "grandfather" them, by allowing them to be certified without new tests and with a lower \$50 fee.

It is similar to human life. At one time there was no education or licensing requirement to become a lawyer. Then the state governments adopted such education and licensing requirements, what did they do with those older men ("grandfathers") when the new regulations went into effect? By "grandfathering," they permitted all those lawyers then in practice to continue practice - all new members would require education and licensing.

I hope the above answers your question.

Sincerely,

FRICION MATERIALS STANDARDS INSTITUTE

E. W. Drislane
E. W. Drislane
Executive Director

EWD:llz

FMSI 12859

— : Products : —

DRUM BRAKES
DISC BRAKES
AUXILIARY BRAKES
EVERY KIND OF
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AKEBONO BRAKE INDUSTRY CO., LTD.

1-2-3 Nihonbashi Koamicho, Chuo-ku, Tokyo, Japan

~~2-4-1, Yoyogi, Shibuya-ku, Tokyo, Japan~~

CABLE ADDRESS:
"BRAKEAKEBONO"
TOKYO

Telex No. 232-2078

Phone: 370-3181

Tokyo December 21, 1972

Ref.

Mr. E. W. Drislane
Executive Director
Friction Materials Standards,
Institute, Inc.
Bergen Mall Office Center
E. 210 Route 4
Paramus. N. J. 07652
U.S.A.

Dear Mr. Drislane:

Concerning your Bulletin No. 460 Dec. 5, 1972, there
are one word which we can not find in the dictionary.

What is the meaning of "grandfathering"?

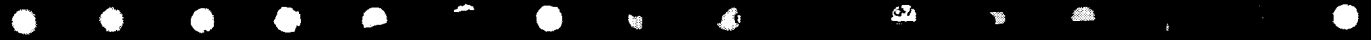
I will be much obliged if you would teach me.

Yours sincerely,

K. Aoki

Kazuhiko Aoki
Managing Director
Headquarters of Engineering
Akebono Brake Industry Co.

AKIEBOND



FMSI 12861

Company Outline

Established: January 25, 1935
 Capital: 1,816 million yen
 Employees: 2,992

Board of Directors:

Keizo Kawasaki	Chairman and Representative Director
Yasusada Nobumoto	President and Representative Director
Yoshiro Ohta	Senior Executive Managing Director
Kazuhiko Aoki	Executive Managing Director
Torao Fujinuma	Executive Managing Director
Yuzaburo Ohta	Executive Managing Director
Tetsuo Jinbo	Executive Managing Director

Yuzuru Shiba	Director
Kazuo Shiozuka	Director
Takeyasu Umeno	Director
Junzo Shiratori	Director
Shigeru Okano	Director
Michio Nakajima	Director
Hajime Matsumoto	Auditor
Yoshimi Kusu	Auditor

Offices:

Main Office: 19-5, Nihonbashi, Koamicho, Chuo-ku, Tokyo 103

Osaka Office: 2-17, Enokicho, Suita City, Osaka 564

Nagoya Office: 3-13, Ohbayashicho, Toyota City, Aichi Pref. 473

Hiroshima Office: 1484, Kaida Ichi, Kaidacho-Aza, Aki-gun, Hiroshima Pref. 731-41

Sapporo Office: 2-11, 6-Jo, Higashi Sapporo, Shiraishi-ku, Sapporo City 062

Sendai Office: Shinden Minami Agaru, Nigatake-Aza, Haracho, Sendai City, Miyagi Pref. 983

Kanto Office: 5-4-71, Higashi, Hanyu City, Saitama Pref. 348

Fukuoka Office: 6-12-7, Itazuke, Hakata-ku, Fukuoka City 812

Plants:

Hanyu Plant: 5-4-71, Higashi, Hanyu City, Saitama Pref. 348

Iwatsuki Plant: 1190, Kanamuro, Ohaza, Iwatsuki City, Saitama Pref. 339

Fukushima Plant: 10, Shinjuku, Narita-Aza, Kooricho Ohaza, Date-gun, Fukushima Pref. 969-16

Miharu Plant: 1, Minamihara, Kumagami-Aza, Miharu-machi-Aza, Tamura-gun, Fukushima Pref. 977

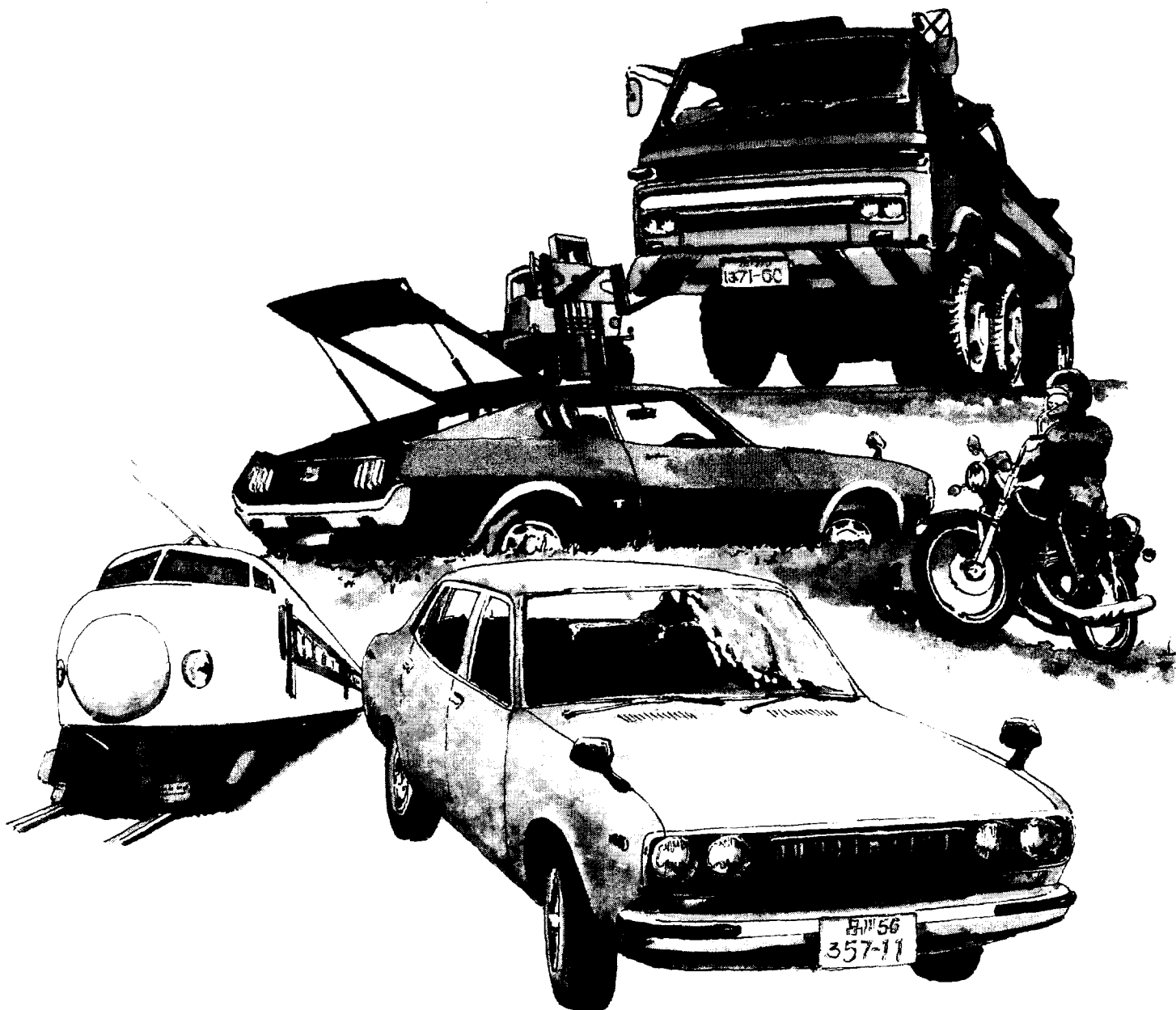
Research Institute:

Technical Center: 5-4-71, Higashi, Hanyu City, Saitama Pref. 348

CHICAGO OFFICE:

200 E. Randolph Dr., Suite 5500, Chicago, Ill. 60601 U.S.A.
 Tel. 312-861-0241

FMSI 12862



Leader in Braking Systems

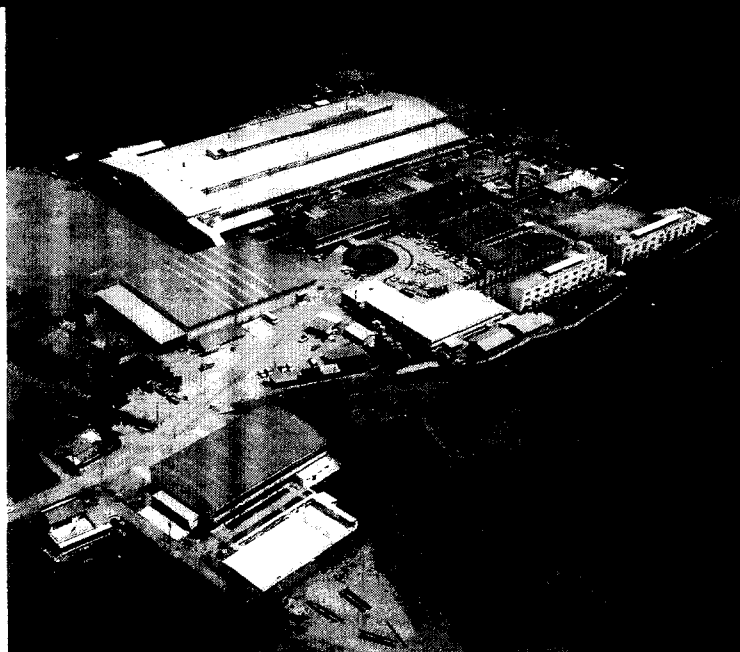
Akebono is the largest all-round brake systems manufacturer in Japan. And it was the first Japanese company to specialize in manufacturing brake linings. Since the time of this pioneering effort Akebono has continued to carry out a program of expanding and improving the quality of its product lines. This research and development activity has been aided by technical cooperation agreements with leading foreign companies specializing in brakes.

Akebono products, because of their su-

perior characteristics, are used in most Japanese cars. They have evolved through the years to maintain a reputation as the best braking systems produced in Japan — particularly well matched to the characteristics of domestically produced vehicles. This has resulted in a very close working relationship with major vehicle manufacturers, which has been further reinforced by their holding blocks of stock in Akebono.

Since its foundation the company's

motto has been "High quality products for safety." Its aim has been not only to manufacture high quality products, but also to take an active part in the development of the automotive industry. The high level of technology achieved and the "know-how" gained through working with the automotive industry, has been applied to other fields, such as industrial machinery and railway rolling stock.

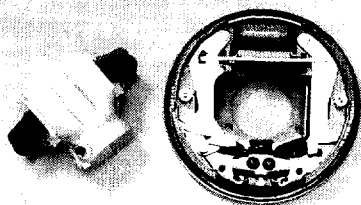


Iwatsuki Plant

Land area: 115,206m²
 Building area: 39,517m²
 Employees: 1,122

Products:

*Brake Assemblies
 Drum Brakes, Disc Brakes
 Brake Shoe Assemblies
 Pressure Control Valves
 Anti-Skid Devices

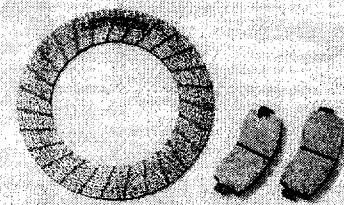


Hanyu Plant

Land area: 100,112m²
 Building area: 37,364m²
 Employees: 805

Products:

*Friction Materials
 Brake Linings,
 Clutch Facings, Disc Pads
 Clutch Plate Assemblies
 Products for Rolling Stock



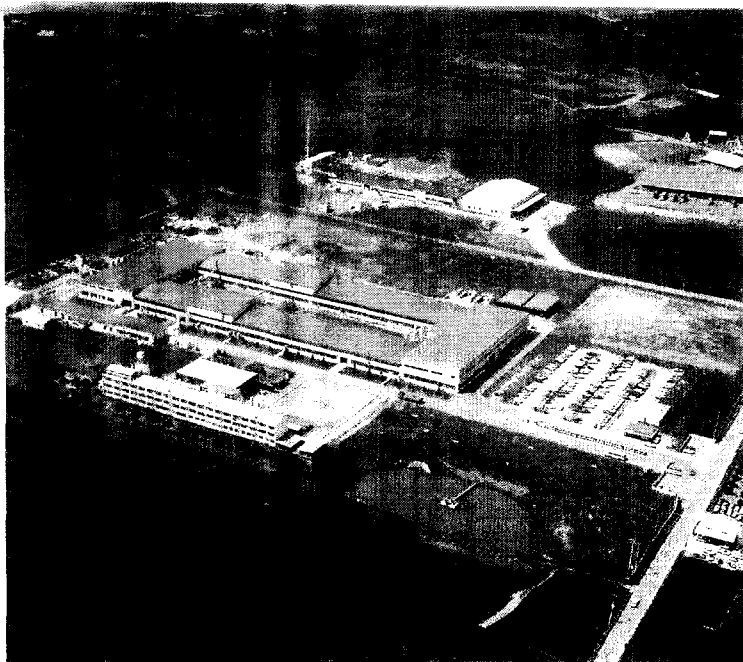
Four Modern Factories

Akebono products are manufactured at four modern factory complexes all of which incorporate the most advanced facilities and equipment. The Iwatsuki Plant and the Miharu Plant produce drum brake assemblies and brake shoe assemblies. The Hanyu Plant produces friction materials and products for railway rolling stock, while the emphasis at the Fukushima Plant is primarily on brake linings. All four plants are located within 250 km of Tokyo.

Production facilities include a transfer press which, at 2,500 tons, is the world's heaviest. It also features the world's highest press speed (12-27 plates/minute) and the fastest capability to store parts in the unmanned warehouse. Akebono was the first company in Japan to construct a test course for cars. All of the company's products are manufactured within the Akebono group.



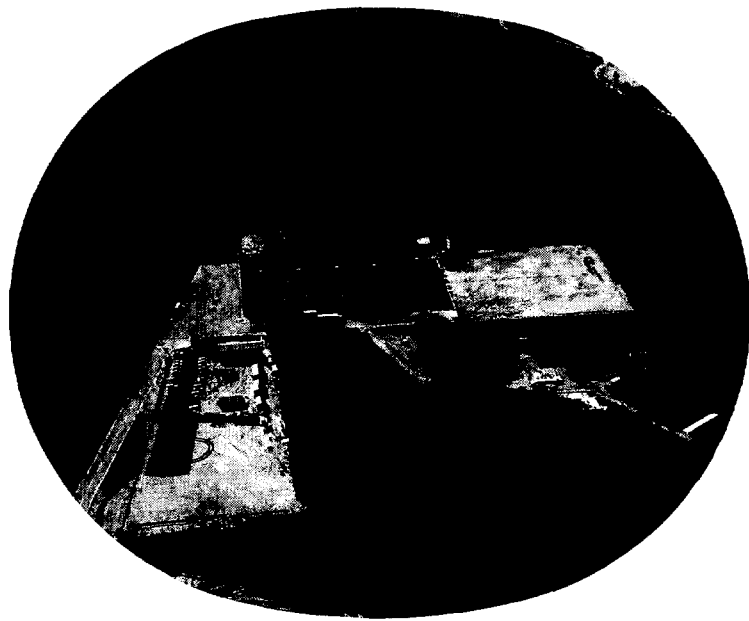
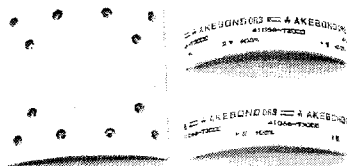
FMSI 12864



Fukushima Plant

Land area: 81,153m²
 Building area: 11,584m²
 Employees: 428
 Products:

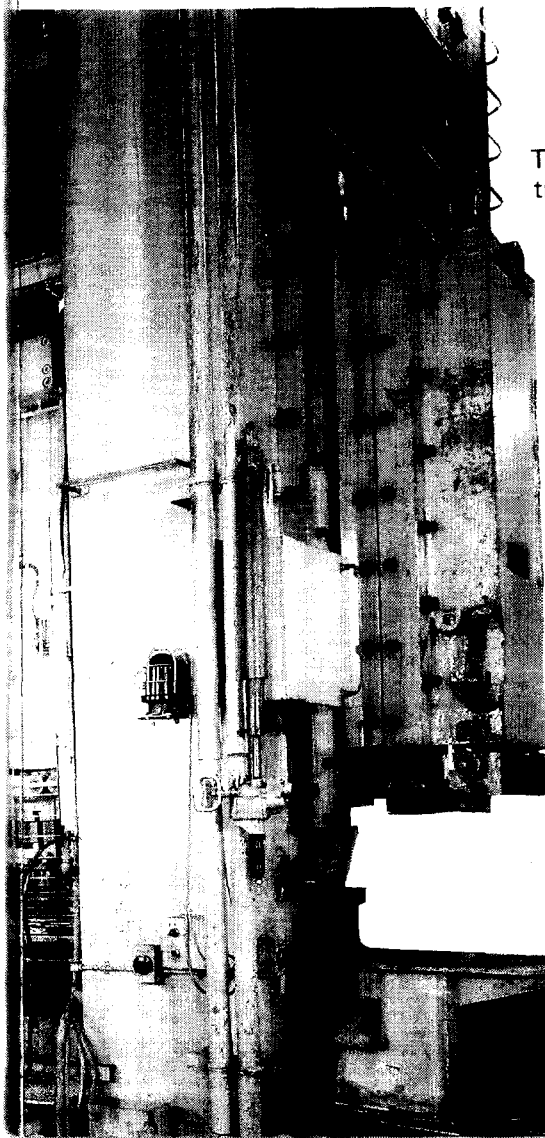
* Friction Materials
 Brake Linings



Miharu Plant

Land area: 129,000m²
 Building area: 4,000m²
 Employees: 105
 Products:

* Brake Assemblies
 Disc Brakes



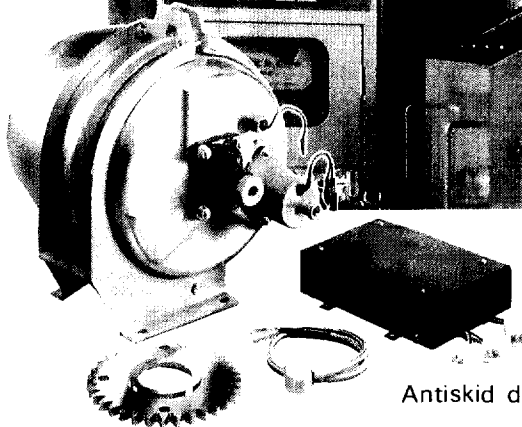
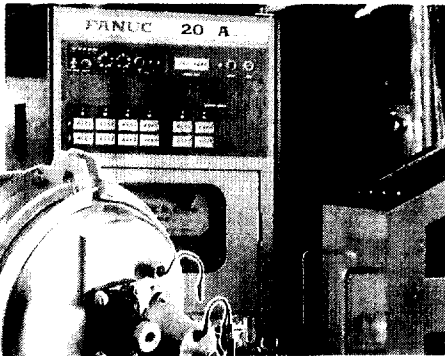
The giant 2,500 ton transfer press



Practical test course

A new and efficient testing course for braking systems was built in 1967 in the suburbs of Iwatsuki City. It measures a rectilinear 1.4 km by 1 km. Completion of this area has facilitated testing in accordance with standards set by the SAE and the American Safety Regulation Committee.

Disc brake linings for "Bullet Train"

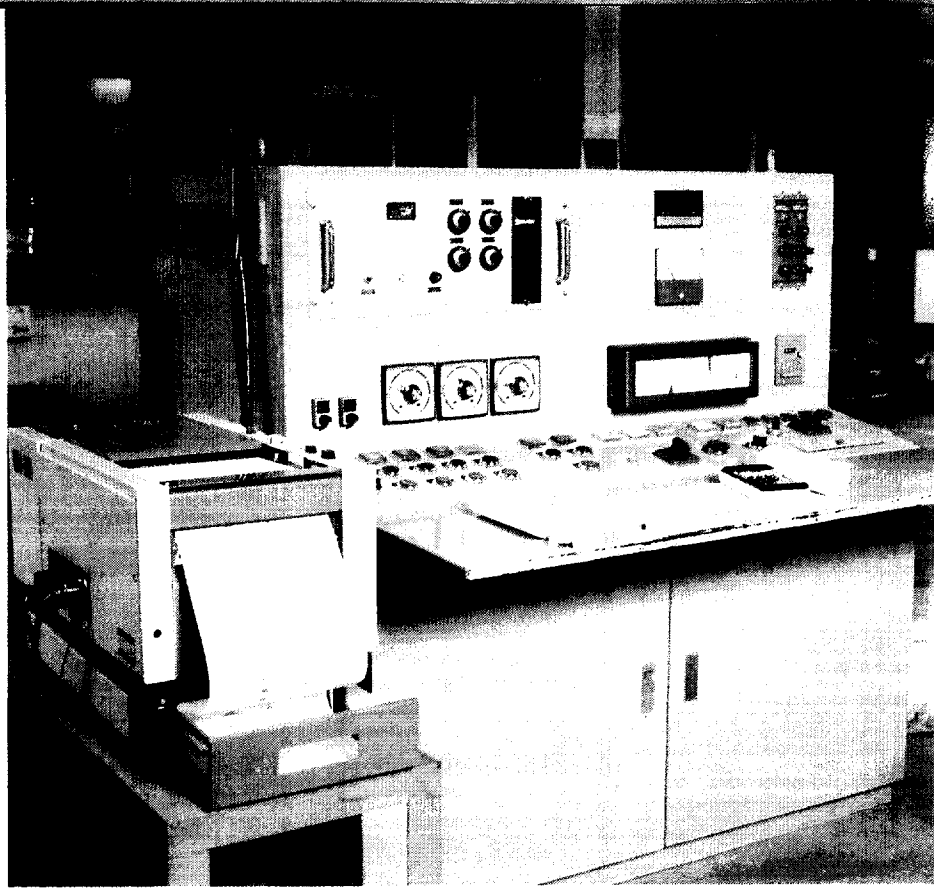


Antiskid devices

Safety and High Quality are Research Goals

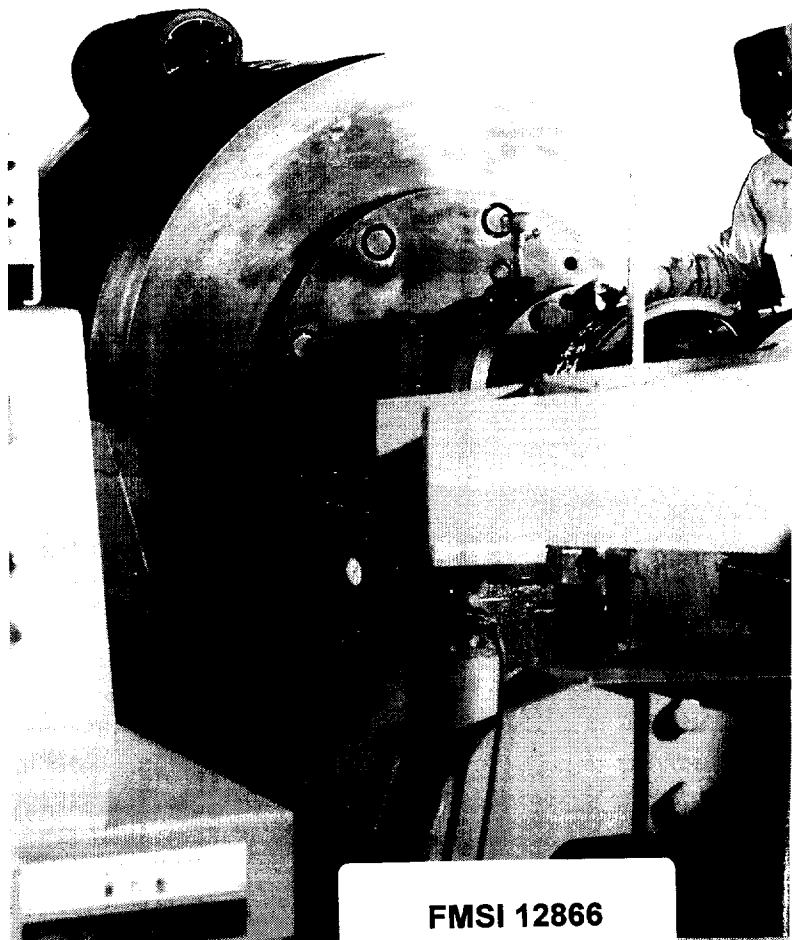
In line with the cited company motto of "High quality products for safety" Akebono has developed total automatic control anti-skid devices under technical cooperation agreements with such leading international brake specialists as the Bendix Companies of America and France, and the Automotive Products Company of England.

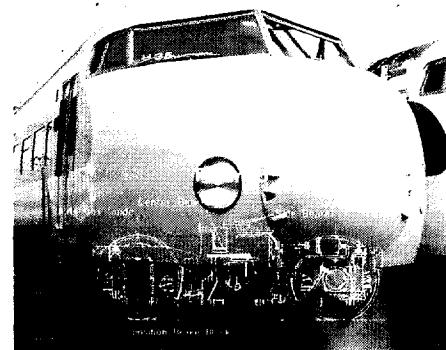
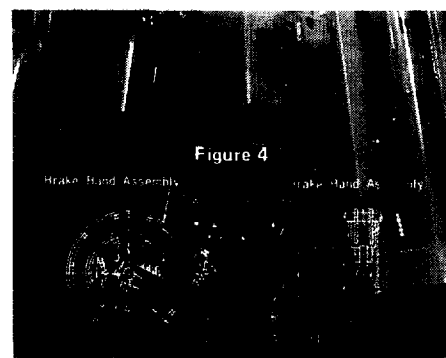
The reliability of a variety of products has been increased through the use of special vibration and large model brake testers developed for the famed the Shinkansen "Bullet Train." To produce braking systems that are among the world's best Akebono has recruited an exceptionally large number of highly trained technicians. The research and development staff alone numbers more than 200.



Brake scale dynamometer

Large dual dynamometer





Brake Systems Closely Related to Today's Activities

Brake Systems for Passenger Cars and Small Trucks

The following braking combinations are recommended for passenger cars and small trucks:

*A combination of two leading-type drum brakes (TP1W: Twin-plex one-way) for the front wheels and leading trailing-type drum brakes for the rear wheels.

*Front disc brakes or four-wheel disc brakes are preferable for high-speed passenger cars and trucks.

(Figs. 1, 2)

Brake Systems for Trucks and Shovel Loaders

Recommended for a truck of high initial braking speed and a shovel loader whose load is heavily distributed to the front wheels, are two leading-type (TP2W: Twin-plex two-way) brakes for the front wheels and leading trailing-type (NSDA: Non-servo double-anchor) brakes for the rear wheels.

For a parking brake, a mechanical type drum brake (DSDA: Duo-servo double anchor) of high efficiency should be used.

(Fig. 3)

Brake Systems for Industrial and Construction Machines

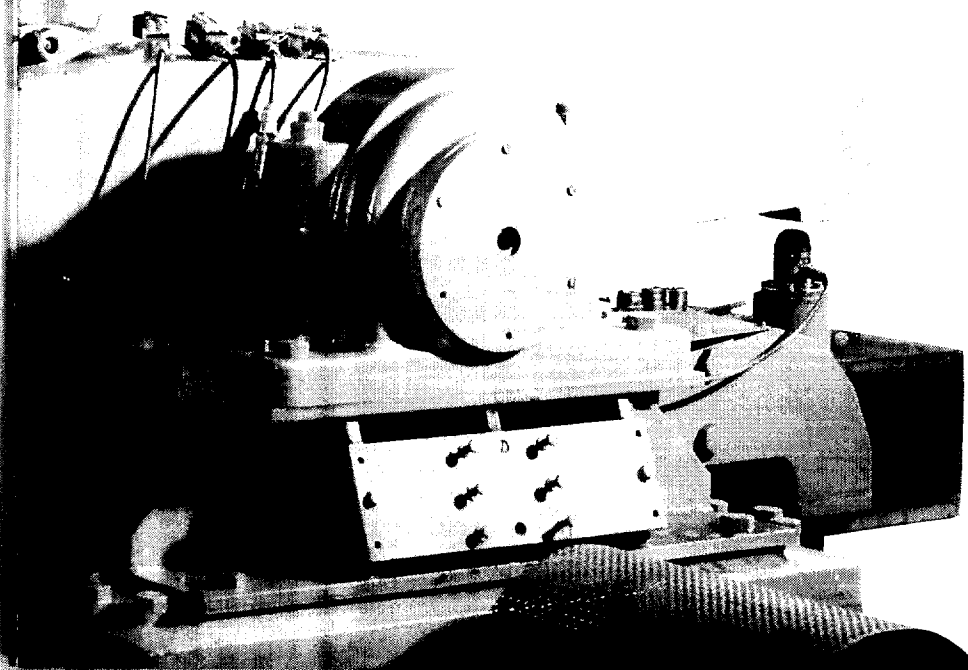
Brakes and clutches for these types of machines must be easy to operate, "feel good" to the operator and provide satisfactory inching performance. Band, drum, or disc-type brakes may be adopted depending upon the speed of the machines. For heavy-duty applications, full power brakes may prove most effective.

(Fig. 4)

Friction Materials for Rolling Stock

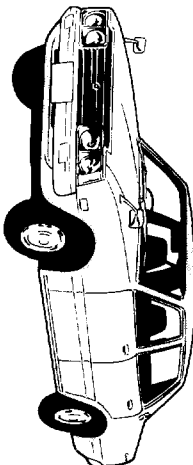
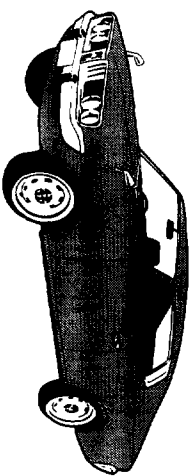
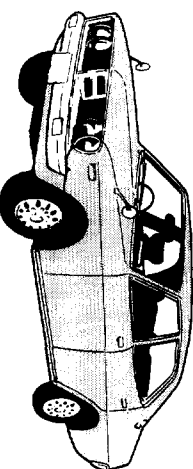
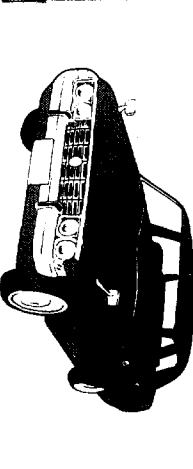
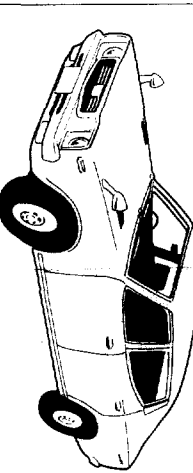
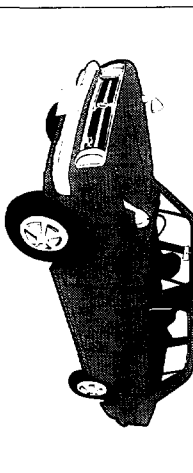
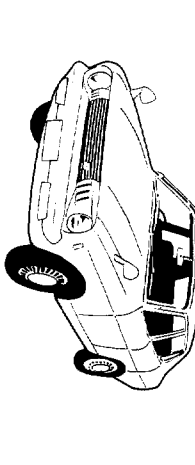
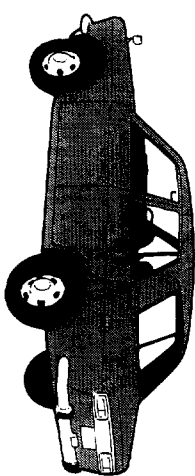
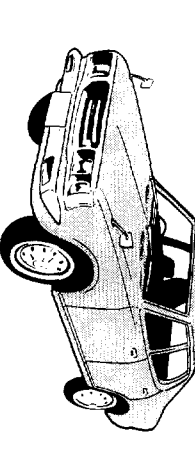
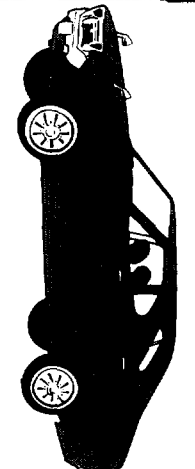
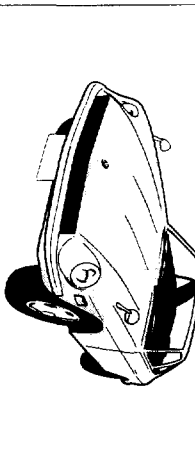
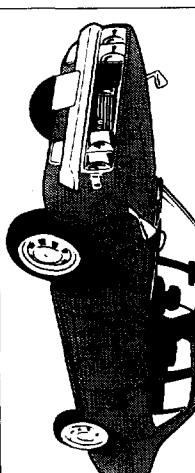
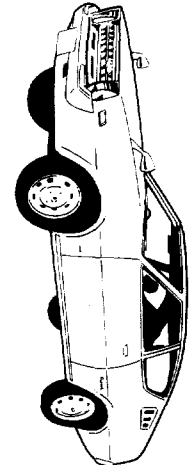
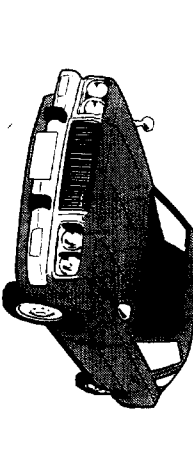
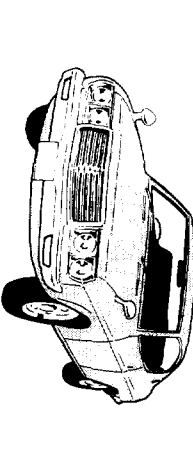
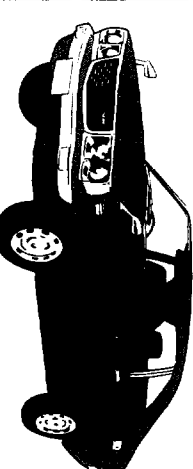
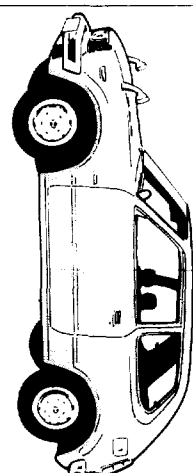
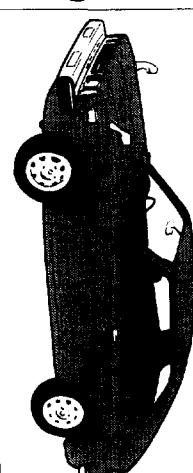
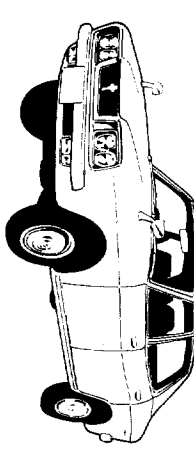
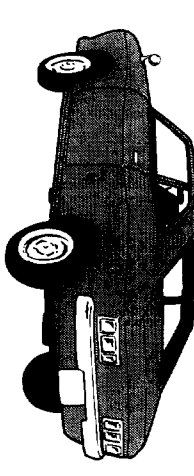
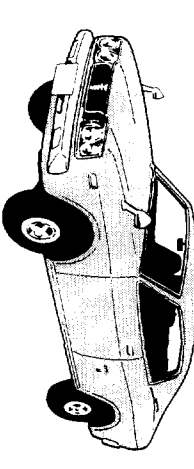
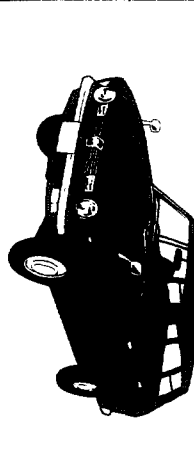
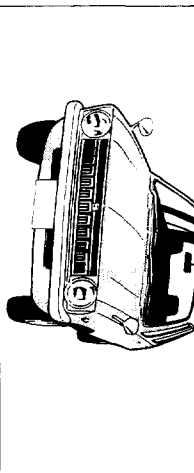
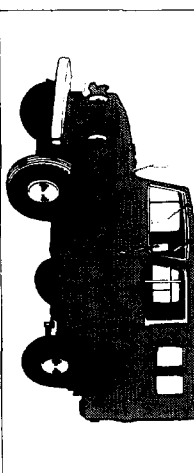
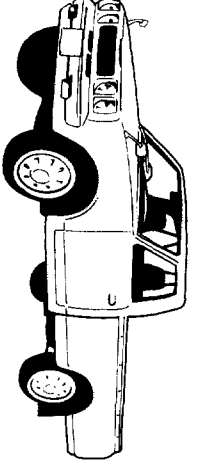
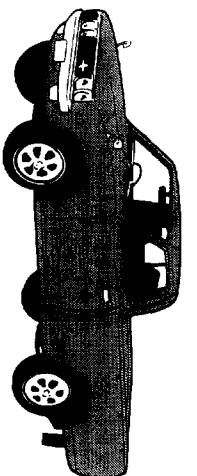
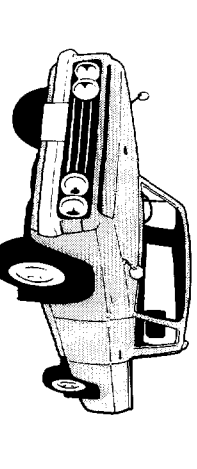
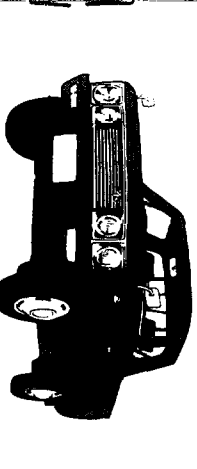
Using both ordinary and emergency brakes, rolling stock must be capable of stopping within specified distances without skidding. A composition brake block offers a more stable coefficient of friction and higher wear-resistance than do ordinary cast-iron blocks; a composition brake block also offers ease in maintaining brakes of rolling stock.

(Fig. 5)

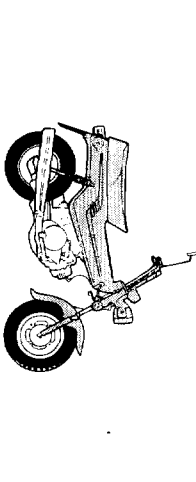
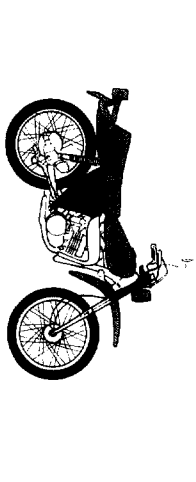
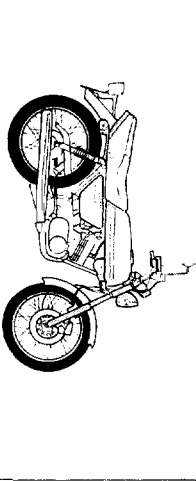
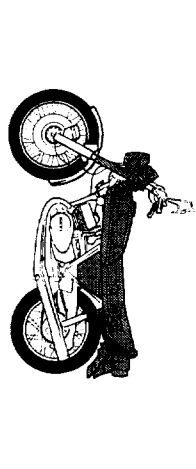
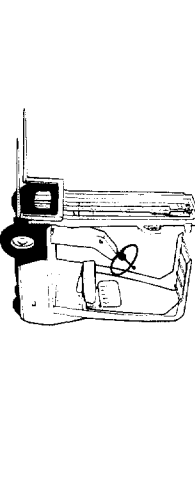
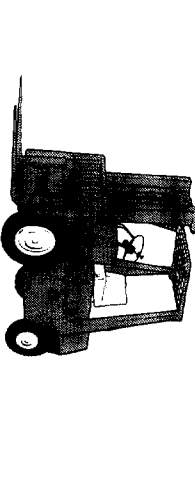
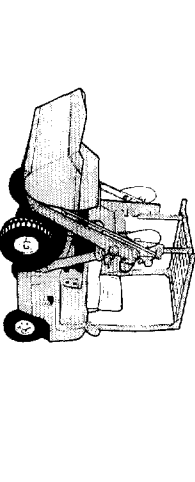
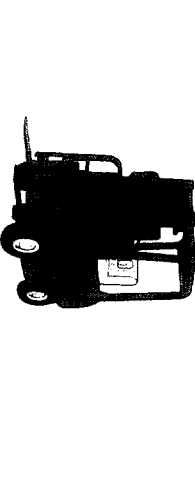


Familiar Vehicles Using Akebono Systems

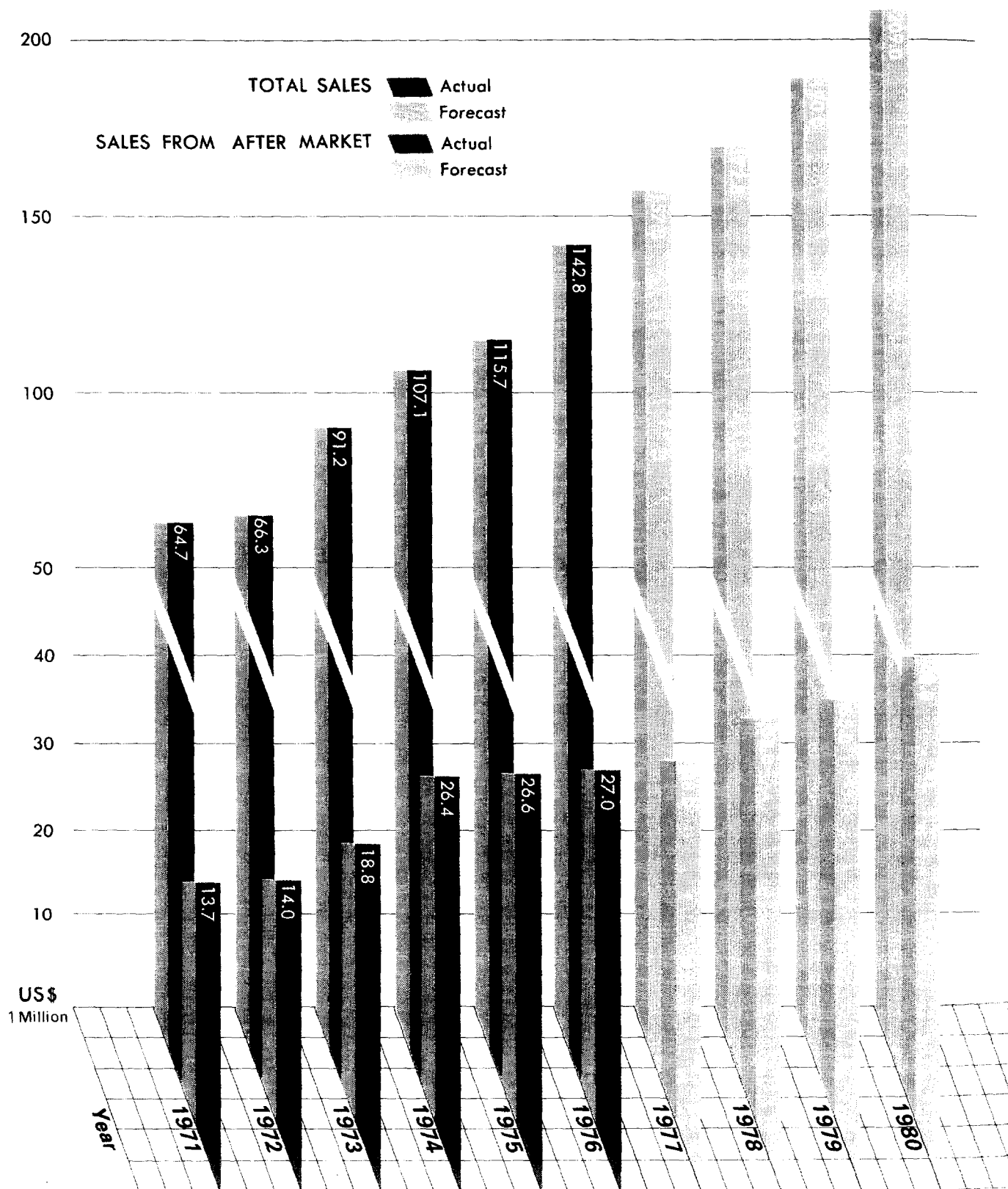
Passenger Cars

Passenger Cars					
					
					
					
					
				Small Trucks	

Motorcycles and Motorbikes

<i>Motorcycles and Motorbikes</i>			
			
			
<i>Forklifts and Shovel Loaders</i>			

AKEBONO SALES GROWTH



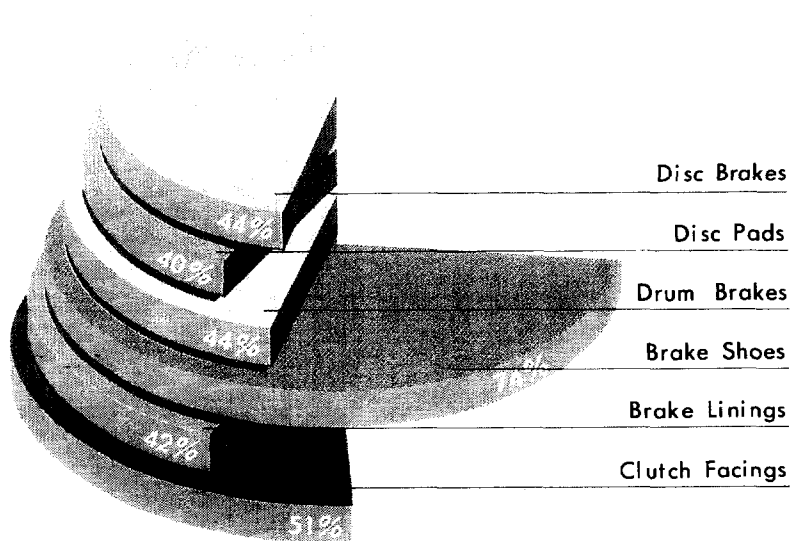
Pacing the Development of Japan's Vehicle Industry

Akebono's growth rate exceeds that of the Japanese automotive industry. This is evident in the fact that annual sales have more than doubled in the five years since 1971. The domestic market share for disc brakes is 44%, while that for brake shoes is 74%. The after market is an astonishing 51%.

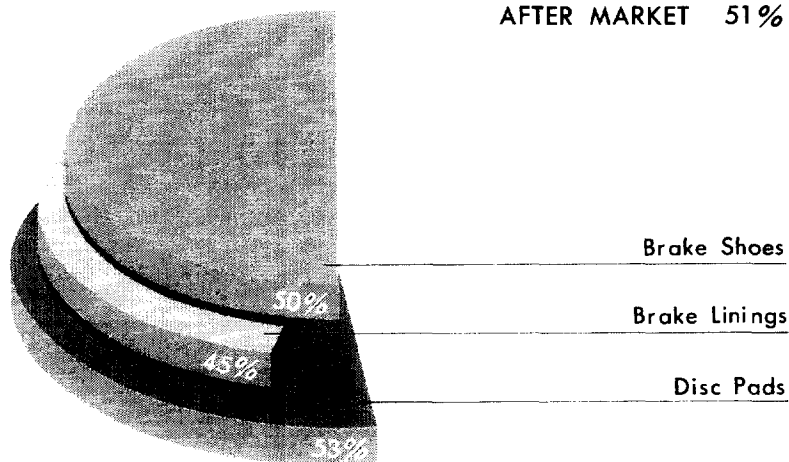
A continued increase in the exports of Japanese vehicles has been forecast. Akebono is contributing significantly to this expansion because of its excellent corporate reputation and variety of quality products.

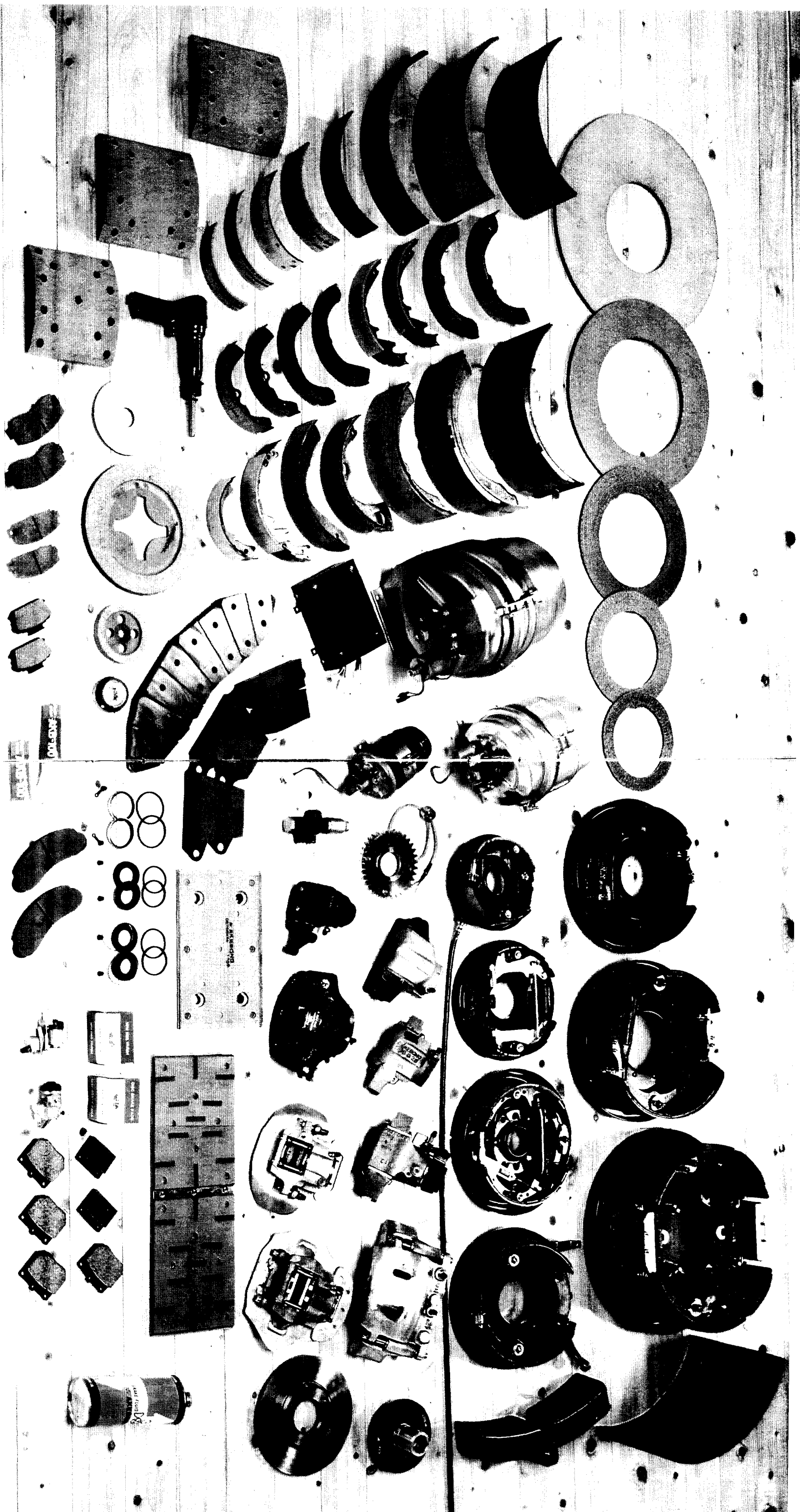
AKEBONO'S SHARE OF THE DOMESTIC MARKET

ORIGINAL EQUIPMENT 43 %



AFTER MARKET 51 %





Brakes and Parts of Assured Quality for Every Need.

Akebono's trademark symbolizes safety, stability, and extreme reliability. To contribute to increased automotive safety, Akebono has produced individual brake parts and brake systems which are engineered to match the total balance of individual vehicles.

The company has also penetrated a variety of industrial fields, with particular emphasis on machine tools. Moreover, it is very active in the field of brakes for railway coaches, a notable example of which is represented by the Shinkansen "Bullet Train."

Akebono Product Lines

- *Automotive Products
 - Drum Brake Assemblies
 - Disc Brake Assemblies
 - Brake Shoe Assemblies
 - Brake Linings
 - Clutch Facings
 - Pressure Control Valves
 - Antiskid Devices
 - Brake Fluids
- *Industrial Machinery Products
 - Various Friction Materials
 - Brake Assemblies
 - Clutch Plate Assemblies
 - Band Brake Assemblies
 - Corn Type Brake Assemblies
 - Electromagnetic Brake Linings
- *Rolling Stock Products
 - Resin Moldings
 - Resin Shoes
 - Disc Brake Linings
 - Various Friction Materials



Exporting Quality Products

The United States, Australia, Greece, India, and Mexico are a few of the countries to which Akebono exports its products in quantity. And Akebono products are being used increasingly in every nation.

Akebono is market-oriented and provides an active international maintenance service. Surveys are frequently carried out for the further development of product lines, and the company is particularly receptive to the exchange

of technical ideas with foreign firms. While the Akebono brand is relatively unknown because the systems and parts it produces are not generally visible, the Akebono name is well recognized by experts around the world.

Affiliated Companies:

Nihon Seido Anzen Kenkyujo, Co., Ltd.	Research and development
Akebono Kiko Co., Ltd.	Mold manufacturing
Akebono Kosan Co., Ltd.	Real estate management
Sanyo Brake Kogyo Co., Ltd.	Brake manufacturing
Hosai Brake Kogyo Co., Ltd.	Brake manufacturing
Akebono Essei Co., Ltd.	Brake manufacturing
Akehai Kogyo Co., Ltd.	Hydraulic parts manufacturing
Sanyo Hydraulic Kogyo Co., Ltd.	Hydraulic parts manufacturing

• Technical tie-ups

The Bendix Corporation — Drum brakes, disc brakes, brake linings, pressure control valves, antiskid devices
Lockhead Hydraulic Brake Co., Ltd. — AP group/Drum brakes, disc brakes, antiskid devices, full power systems
D.B.A. — Drum brakes, disc brakes, pressure control valves

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FMSI 12873

FMSI 12874

A P P L I C A T I O N F O R M E M B E R S H I P

TO THE BOARD OF DIRECTORS OF
FRICTION MATERIALS STANDARDS INSTITUTE, INC.

Effective July 1, 1967

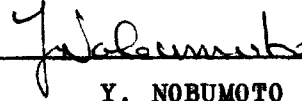
Gentlemen:

The undersigned hereby applies for membership in the FRICTION MATERIALS STANDARDS INSTITUTE, INC., as a Regional Member, and certifies to the following:

1. Name of Applicant: AKEBONO BRAKE INDUSTRY CO., LTD.
2. State of Incorporation: No. 2, 1-chome, Nihonbashi Honcho, Chuo-ku, Tokyo, Japan
3. Principal Office: Same as above
4. Date of Incorporation: 1929 July
5. Length of time dealing with friction materials: 38 years
6. Do you manufacture friction materials from the basic materials or do you buy partially finished products from other companies: From the basic materials.
7. Type of friction materials manufactured, and approximate annual capacity of plant: Automotive Brake Linings, Clutch Facings, Railway Shoe
8. State approximate amount of said materials manufactured in commercial quantities: Linings - 420 tons, Clutch Facings - 74 tons, Railway Shoe - 40 tons per months
9. Is the distribution of your product national, international or local: Mainly national.
10. Do you list the materials you manufacture in catalogs or in some other form; if so, will you furnish us with a copy of same: Catalogs
11. Reference as to financial strength in relation to operations: 24.5%
12. Is plant owned by applicant or leased: Owned

The undersigned hereby acknowledges receipt of a copy of the Constitution and By-Laws of the Institute and agrees that, if elected to membership, it will accept and be bound by the said Constitution and By-Laws, together with any amendments that may from time to time be made thereto.

BY



Y. NOBUMOTO
President