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PLAINTIFF'S  
EXHIBIT

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6/25/08 (R)

CIVIL DISTRICT COURT  
FOR THE PARISH OF ORLEANS  
STATE OF LOUISIANA

GEORGE DOUGLAS and BONNIE  
MORALES DOUGLAS,

Plaintiffs,

vs.

ALLIED-SIGNAL, INC.,

et al.,

Defendants.

Civil Action Number  
93-9533

DEPOSITION OF BRUCE E. KETCHAM

Washington, D.C.  
Friday, January 22, 1999

REPORTED BY:  
WENDY S. CASWELL

ACE-FEDERAL REPORTERS, INC.

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1 Deposition of BRUCE E. KETCHAM, called for  
2 examination pursuant to notice of deposition, on  
3 Friday, January 22, 1999, in Washington, D.C. at the  
4 law offices of Shea and Gardner, 1800 Massachusetts  
5 Avenue, N.W., Suite F, at 10:35 a.m. before WENDY S.  
6 CASWELL, Court Reporter, having been duly sworn by  
7 Edwin G. Crowley, a Notary Public within and for the  
8 District of Columbia, when were present on behalf of  
9 the respective parties:

10 PERRY J. ROUSSEL, JR., ESQ.

11 Roussel and Roussel

12 1710 Cannes Drive

13 LaPlace, Louisiana 70068

14 (504) 651-6591

15 On behalf of Plaintiffs

16 THOMAS J. MIKULA, ESQ.

17 REENA N. GLAZER, ESQ.

18 Shea & Gardner

19 1800 Massachusetts Avenue, N.W.

20 Washington, D. C. 20036

21 (202) 828-2000

22 On behalf of Defendant Rockwell

1 APPEARANCES (CONTINUED):

2 MICHAEL T. CALI, ESQ.

3 Frilot, Partridge, Kohnke & Clements, LC

4 3600 Energy Centre

5 1100 Poydras Street

6 New Orleans, Louisiana 70163-3600

7 (504) 599-8005

8 On behalf of Abex Corporation and

9 Motion Control Industries, Inc.

10

11 JULIANNE P. ECHOLS, ESQ.

12 CHRIS WNUK, ESQ.

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14 One Shell Square

15 701 Poydras

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17 (504) 561-0400

18 On behalf of Ford Motor Company

19

20

21

22

-- continued --

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1 APPEARANCES (CONTINUED):

2 WILLIAM BROCKMAN, ESQ.

3 ROBERT KNIGHT, ESQ.

4 HOWARD KAPLAN, ESQ.

5 Bernard, Cassisa & Elliott

6 1615 Metairie Road

7 Metairie, Louisiana 70005-5490

8 (504) 834-2612

9 On behalf of General Motors

10

11 WILLIAM J. PERRY, ESQ.

12 (For David Schnexnaydre)

13 3850 North Causeway Boulevard

14 Lakeway II, Suite 650

15 Metairie, Louisiana 70002

16 (504) 836-6300

17 On behalf of Midland Brake, Prattville

18 Manufacturing, Inc., and United Brake

19

20

21

22

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P R O C E E D I N G S

Whereupon,

BRUCE E. KETCHAM

was called as a witness and, having first been duly sworn, was examined and testified as follows:

MR. ROUSSEL: Usual stipulations?

MR. MIKULA: Which are?

MR. ROUSSEL: No objections except to the form of the question and responsiveness?

MR. MIKULA: You mean all objections --

MR. ROUSSEL: Are reserved.

MR. MIKULA: That's fine.

MR. CALI: Yes.

EXAMINATION

BY MR. ROUSSEL:

Q Okay, Mr. Ketcham. My name is Perry Roussel. I represent the plaintiffs in this case. Could you please give your full name and address for the record?

A Bruce E. Ketcham. My business address is 2135 West Maple Road, Troy, Michigan 48084.

Q Could you please give me your home

1 address.

2 A Home address is 2854 Steamboat Springs,  
3 Rochester Hills, Michigan 48309.

4 Q Could you please go over your educational  
5 background for the record.

6 A Starting?

7 Q Starting with high school.

8 A I graduated from Poughkeepsie High School  
9 in Poughkeepsie, New York. I attended --

10 Q What was the date of that?

11 A 1967. I attended Union College in  
12 Schenectady, New York, graduated in 1972 with degrees  
13 in electrical engineering and industrial economics.

14 Q Any further education?

15 A Yes.

16 Q What?

17 A I attended Xavier University in Cincinnati,  
18 Ohio, received my MBA, I believe that was in 1981.

19 Then I attended the University -- First of  
20 all, I attended North Kentucky University and,  
21 starting in 1983, and then transferred to the  
22 University of Detroit and received my PhD in 1987.

1 Q Are you licensed to practice law in any  
2 state?

3 A Yes.

4 Q Which states are those?

5 A Michigan.

6 Q When did you receive your license?

7 A I believe it was 1988.

8 Q Do you practice law?

9 A No.

10 Q Do you perform any legal functions for  
11 Rockwell International Corporation?

12 A No.

13 Q Have you used your law degree in any  
14 manner?

15 A To the extent that I use my legal training  
16 in my current position, so I used the training that I  
17 received.

18 Q Why don't you tell me about your employment  
19 history, starting from high school and when you got  
20 out of college, whenever you first became employed.

21 A Are you talking regarding full-time  
22 employment?

1 Q Full- or part-time.

2 A Well, then, could you clarify whether you  
3 want high school or whether you want after my  
4 graduation from college.

5 Q Well, did you do any full-time work between  
6 high school and college?

7 A No.

8 Q After college?

9 A I started with the General Electric Company  
10 following my graduation from college in 1972 in  
11 Schenectady, New York.

12 Q What did you do there?

13 A I was on their manufacturing management and  
14 training program.

15 Q What did you do there at that particular  
16 location?

17 A It was a large location, had various  
18 manufacturing businesses located in the facility.

19 Q What was your function there?

20 A I was a methods specialist.

21 Q When you say methods, are you talking about  
22 industrial engineering-type work done in time and

1 motion studies; what type of work are you talking  
2 about?

3 A Generally that type of thing, although not  
4 that type of description as you describe.

5 Q What areas were you evaluating as a methods  
6 specialist?

7 Let me clarify it a little bit. Did you  
8 have any work with automobile parts at that  
9 particular location?

10 A No.

11 Q That includes no trucks, heavy-duty trucks,  
12 vehicles, trailers, that type of snuff?

13 A That's correct.

14 Q What was your next job?

15 A I went into the Army Reserve for active  
16 duty.

17 Q When was that?

18 A In the fall of 1972.

19 Q How long were you on active duty?

20 A Approximately six months.

21 Q Did you go to Vietnam then?

22 A No.

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1 Q What did you do on active duty?

2 A That was the training, basic training and  
3 AIT.

4 Q What type of training were they giving you?

5 A Basic training, and following that,  
6 training in transportation, MOS.

7 Q What does that stand for?

8 A I don't know at this point in time.

9 Q What did you do after the reserves?

10 A I returned to General Electric.

11 Q Had your job changed any?

12 A I went on to the next assignment in the  
13 manufacturing training program.

14 Q What was that?

15 A That was as a production control  
16 specialist.

17 Q Again, dealing with any automotive parts,  
18 truck parts, that type of stuff?

19 A No.

20 Q How long were you at GE?

21 A Until 1978.

22 Q At any time while you were at GE, did you

1 work with any automotive parts, truck parts of any  
2 type, anything like that?

3 A No.

4 Q When you left GE, where did you go next?

5 A To Rockwell International.

6 Q That was in 1978?

7 A That's correct.

8 Q Tell me what you did when you first got to  
9 Rockwell.

10 A I was sales order manager at their  
11 Florence, Kentucky facility.

12 Q What was your function as a sales order  
13 manager?

14 A Supervising the sales order function.

15 Q What did you sell there?

16 A Automotive service parts.

17 Q What type of parts did you sell at this  
18 particular location?

19 A The Florence facility was the service parts  
20 facility for Rockwell International. We sold the  
21 full gamut of the aftermarket parts in support of  
22 Rockwell's production business.

1 Q Tell me what you mean by "aftermarket  
2 parts."

3 A Parts that would be used to repair or  
4 replace product in the field, of service.

5 Q What types of product?

6 A Pardon?

7 Q What types of product?

8 A Major categories would include axles,  
9 brakes, drive lines.

10 Q Is that the first experience you had with  
11 automotive parts?

12 A Yes.

13 Q Could you tell me how, as your position  
14 progressed, and what different locations you have  
15 worked at with being with Rockwell.

16 A In the fall of '78, I moved to purchasing  
17 manager at the Florence facility.

18 MS. ECHOLS: I would like to interrupt for  
19 a second. This is Julianne Echols, for Chris Wnuk.  
20 I have arrived.

21 MR. ROUSSEL: Good.

22 MS. ECHOLS: Thanks.

1 BY MR. ROUSSEL:

2 Q What did you do as purchasing manager?

3 A I was responsible for supervising the  
4 purchasing function that handled the procurement of  
5 outside product, not internal Rockwell products.

6 Q When you say outside product, we are  
7 talking about supplies to Rockwell?

8 A That's correct.

9 Q What types of supplies are we talking  
10 about?

11 A General major categories, might be  
12 fasteners, bearings, seals, those types of products  
13 that Rockwell itself did not manufacture.

14 Q What about brake linings, brake shoes,  
15 brake pads, is this something that you did in this  
16 Florence, Kentucky location?

17 A Could you repeat the question.

18 Q When you said Florence, you said it was  
19 Florence, Kentucky?

20 A That's correct.

21 Q Was that something you did in the Florence,  
22 Kentucky location, purchase brake linings, shoes,

1 brake pads, that type of stuff, from outside vendors  
2 for assembly by Rockwell?

3 A I can't recall whether they came from  
4 outside vendors or whether they came through our  
5 inner-plant sources.

6 Q How would they have been ordered by  
7 inner-plant sources? What do you mean by inner-plant  
8 sources?

9 A Rockwell has a number of manufacturing  
10 plants where we produce the production product that  
11 was sold to the original equipment manufacturers. We  
12 would -- not the purchasing function, but Florence  
13 would order certain of its parts directly against its  
14 inner-plant sources.

15 For instance, if there was a brake shoe and  
16 lining assembly, that would have been ordered from  
17 one of our brake manufacturing assembly plants.

18 Q The Florence, Kentucky operation, was that  
19 a distribution center, or what was that?

20 A That's correct, it was a distribution  
21 center.

22 Q So there was no manufacturing going on in

1 Florence or at Florence?

2 A Not at that time.

3 Q At that time, you weren't concerned about  
4 any manufacturing operations?

5 A No.

6 Q What was your next job at the Florence  
7 location?

8 A I was the production control manager.

9 Q Now, we are going from distribution to  
10 production control. Can you tell me exactly how or  
11 what has changed, now that you are production control  
12 manager.

13 A I am still at the Florence, Kentucky  
14 facility. The production control manager, in that  
15 function, I had responsibilities at various times for  
16 several subdepartments, including procurement,  
17 purchasing -- purchasing, quality control, incoming,  
18 receiving, traffic, information services, and  
19 inventory control.

20 Q Let me ask you about -- at this time, was  
21 anything being produced in the Florence facility, or  
22 was it still a distribution center only?

1 A At what time?

2 Q At the time you became production control  
3 manager.

4 A At the time I became production control  
5 manager, there was no production, there, it was a  
6 distribution center.

7 Q What was the date of that?

8 A 1982 approximately.

9 Q What quality control were you concerned  
10 about?

11 A Incoming inspection of purchased complete  
12 parts as well as quality control of the packaging and  
13 kitting operations that went on in the facility, and  
14 the final pick and shipment to our customers.

15 Q What was your next job with Rockwell?

16 A I was the division materials manager for  
17 the on-highway axle division.

18 Q For what division is that?

19 A On-highway axle.

20 Q What did you do as the division manager for  
21 the on-highway axle division, and when was that?

22 A I started in 1984. I was responsible for

1 coordinating the materials activity with the five  
2 on-highway axle plants.

3 Q Did any of the on-highway axle plants make  
4 brake shoes, brake linings, those types of products?

5 A No, they did not make them.

6 Q What did they produce?

7 A They produced axles, the driving axles and  
8 front axles for on-highway vehicles.

9 Q What was your next position with the  
10 company?

11 A I was the manager of product compliance.

12 Q When was that?

13 A 1988.

14 Q What did you do as manager of product  
15 compliance?

16 A Responsible for product safety  
17 investigations, recall notices to our customers in  
18 compliance with NHTSA regulations, and communications  
19 with NHTSA and NTSB.

20 Q When you say NHTSA, what are you talking  
21 about?

22 A National Highway Traffic Safety

1 Administration.

2 Q What was your next position with Rockwell  
3 International?

4 A Manager of product analysis.

5 Q When was that?

6 A In 1993.

7 Q What did you do in that function?

8 A Initially, I was responsible for assisting  
9 counsel in the defense of product liability  
10 litigation and claims.

11 Q What else?

12 A Over the years, it was expanded to handle a  
13 couple of other areas, including government contract  
14 administration, as well as contract administration  
15 with our on-board computer business.

16 Q You said "initially." How has that changed  
17 from 1993 through the years? In addition, what have  
18 you done in that position?

19 A The additional responsibilities were added  
20 over time in the contracts area.

21 Q Then when did you change positions, or are  
22 you still in that position?

1           A       I am still in that position. However, it  
2 is now Meritor Automotive, Inc.

3           Q       Is that the new company you work for?

4           A       Yes.

5           Q       Could you spell that for me.

6           A       Meritor, M-E-R-I-T-O-R, Automotive,  
7 Incorporated.

8           Q       How did you come from working for Rockwell  
9 International to Meritor Automotive, Incorporated?

10          A       Rockwell spun off the automotive businesses  
11 of Rockwell effective October 1, 1997, and a new  
12 company was formed of those automotive businesses.

13          Q       Is any automotive still done by Rockwell  
14 itself, any automotive business?

15          A       No.

16          Q       Do you know the reason why they spun off  
17 this particular company?

18          A       They were transforming the company and  
19 narrowing its focus into an electronics business.

20          Q       What do you do at Meritor Automotive,  
21 Incorporated?

22          A       Same positions I did for Rockwell, final

1 position.

2 Q You started in 1997?

3 A Yes, October 1, 1997 was when the company  
4 came into existence.

5 Q Is Meritor Automotive a division of  
6 Rockwell, or is it a separate corporation?

7 A It is a separate corporation.

8 Q It is wholly owned by Rockwell?

9 A No, independent corporation.

10 Q Do you know if it's a subsidiary  
11 corporation of Rockwell?

12 A No.

13 Q How is it related to Rockwell?

14 A It is the former businesses of Rockwell  
15 Automotive.

16 Q Does Rockwell have an interest in it?

17 A No.

18 Q They don't own the stock?

19 A No.

20 Q Do you know who owns the stock?

21 A The shareholders.

22 Q Is it a corporation that's traded on the

1 New York Stock Exchange?

2 A Yes.

3 Q Did you read or review any documents in  
4 preparation for this deposition today?

5 A Yes.

6 Q Could you tell me what you reviewed for  
7 your deposition.

8 A As I recall, some of the interrogatory  
9 answers, the document request, some literature and  
10 publications and some correspondence.

11 Q Did you look at any Rockwell documents as  
12 far as their corporate history or anything like that,  
13 or were you already familiar with that?

14 A I did not look at any Rockwell documents  
15 regarding corporate history.

16 Q Do you know about Rockwell's corporate  
17 history, how did it develop, I guess, maybe, from  
18 1935 on?

19 A In generalities, yes.

20 Q Why don't you tell me a little bit about  
21 them.

22 A Starting when?



1 Q 1935.

2 A 1935. I believe at that point in time it  
3 was known as Timken Detroit Axle Company.

4 Q Let me stop you for a second. I want to  
5 ask you a little bit about this Timken Detroit Axle  
6 Company. What did Timken make, do you know, when  
7 they were operating?

8 A Wait a minute. Where -- can you be more  
9 specific?

10 Q When they were operating under the name of  
11 Timken Detroit Axle, what type of products were they  
12 making?

13 A Axle products, brake products. There may  
14 have been other businesses that they held, but I  
15 don't recall what they were at this particular point  
16 in time.

17 Q Did Rockwell purchase Timken? Exactly what  
18 happened to Timken?

19 A In 1953, the Timken Detroit Axle Company  
20 became, I believe it was, Rockwell Spring and Axle.

21 Q Now, once this change was made, was  
22 Rockwell Spring and Axle still producing parts under

1 Q Yes.

2 A In approximately 1957, it became Rockwell  
3 Standard.

4 Q Now, when Rockwell Standard took over the  
5 company, it became the name of Rockwell Standard.  
6 Were they still using the same or selling parts under  
7 the name of Timken Detroit Axle?

8 A I don't recall.

9 Q Do you remember at what point in time, if  
10 ever, Rockwell quit using the name Timken Detroit  
11 Axle, or do they still use it today?

12 A No, it is still not used today.

13 Q Do you know when they stopped using it?

14 A No, I do not.

15 Q Does Rockwell have records or any  
16 information to identify when the Timken Detroit Axle  
17 name was discontinued in its use?

18 A Not that I am aware of.

19 Q Do you know who would know that type of  
20 information?

21 A No.

22 Q You said you didn't know when it stopped.

1 Do you have any rough estimate of when it stopped  
2 using it?

3 A By the '60s, I believe that it was no  
4 longer using that nomenclature. Where in the '60s, I  
5 don't know.

6 Q When you came to work for Rockwell in 1978,  
7 did you handle any products at the distribution  
8 center that still had the Timken Detroit Axle name on  
9 it?

10 A Not that I can recall.

11 Q Based on, maybe, your review, was Timken  
12 Detroit Axle a big vendor, whether you know or not?

13 MR. MIKULA: Objection, vague.

14 BY MR. ROUSSEL:

15 Q Was there a lot of product sold under that  
16 particular name?

17 A Objection, vague.

18 MR. MIKULA: Objection, vague.

19 THE WITNESS: All of the product that the  
20 company made was sold under that name. The volumes  
21 that were at any given point in time, I don't know,  
22 as we sit here.

1 BY MR. ROUSSEL:

2 Q Initially, in 1953 when the name was  
3 changed to Rockwell Spring and Axle, was Rockwell  
4 only making automotive parts at that time?

5 A I don't recall as I sit here.

6 Q What was the name change after Rockwell  
7 Standard?

8 A North American Rockwell.

9 Q That was approximately what year?

10 A Approximately 1967.

11 Q Eventually, in 1973, I think, it changed to  
12 Rockwell International Corporation?

13 A I believe that's the approximate date.

14 MR. MIKULA: Excuse me one second.

15 MR. ROUSSEL: We can go off the record for  
16 a second.

17 (Discussion off the record.)

18 MR. MIKULA: Go ahead.

19 MR. ROUSSEL: Back on the record.

20 BY MR. ROUSSEL:

21 Q How many locations of Rockwell make  
22 automotive parts, such as brake shoes, brake linings,

1 or assemble those parts?

2 A At what point in time?

3 Q Let's say from 1970 on.

4 A At some point in time, North America,  
5 Ashtabula, Ohio facility, Tilbury, Ontario, our York,  
6 South Carolina facility, our Battle Creek, Michigan  
7 facility, our Kenton, Ohio facility, and our  
8 Florence, Kentucky facility.

9 In addition, brake assemblies were used and  
10 attached to axles at various occasions at our axle  
11 facilities.

12 Q What about Troy, Michigan?

13 A Troy, Michigan is the headquarters  
14 operation.

15 Q Did they make anything there?

16 A No.

17 Q Both the facilities that you named, does  
18 any particular facility supply or distribute products  
19 into the State of Louisiana; do they all, basically,  
20 distribute products or initially supply to a  
21 distributor who is going to supply into the State of  
22 Louisiana?

1 MR. MIKULA: Objection, vague.

2 THE WITNESS: Could you clarify your  
3 question.

4 BY MR. ROUSSEL:

5 Q Of the five facilities, six facilities that  
6 you named, where do they send their products?

7 A To their customers.

8 Q And their customers could be an independent  
9 organization?

10 MR. MIKULA: Objection, vague.

11 BY MR. ROUSSEL:

12 Q Someone not associated with Rockwell?

13 A Yes.

14 Q Their customers could also be a Rockwell  
15 distribution facility?

16 A Yes, other than the one itself.

17 Q Which is the Florence facility?

18 A Correct.

19 Q Any of the other facilities you named, are  
20 they a distributor also, a distribution center?

21 A At what period of time?

22 Q During -- from 1970 on.

1 A 1970?

2 Q Yes.

3 A Distribution was made, yes.

4 Q Which one?

5 A I know of Kenton, Ohio.

6 Q Any other one besides Florence?

7 A Not that I know of, as I sit here, now.

8 Q Do the six facilities you mention all  
9 supply the Kenton, Ohio, and Florence facilities; do  
10 certain manufacturing operations supply certain  
11 distribution centers?

12 A Could you repeat that question.

13 Q Yes, you have two distribution centers. Do  
14 those two exist presently?

15 A No. Well, let me back up. They do not  
16 exist as distribution centers presently.

17 Q When did the Kenton plant stop  
18 distributing?

19 A 1976.

20 Q When did the Florence operations stop as a  
21 distribution center?

22 A That still is a distribution center.

1 Q They still have one distribution center?

2 A Today?

3 Q Yes.

4 A The Florence facility, and Florence also  
5 has a satellite operation in Brampton, Ontario,  
6 B-r-a-m-p-t-o-n. And at one point in time they had a  
7 West Coast facility in Hayward, California, again, a  
8 satellite of Florence.

9 Q The six manufacturing facilities that you  
10 mentioned, do they all manufacture the same product?

11 MR. MIKULA: Why don't you ask him about  
12 the names of the facilities, then you can go over and  
13 find that out again, instead of the six ones that he  
14 mentioned.

15 BY MR. ROUSSEL:

16 Q Kenton, Ohio, is that with a K?

17 A Yes, it's with a K.

18 Q It's hard to say, because, does the Kenton,  
19 Ohio facility manufacture the same thing as the  
20 Ontario facility?

21 A Some product may be the same.

22 Q Let me be more specific. Brake shoes and

1 brake linings are the same thing; is that correct?

2 A To me?

3 Q I am asking you, yes.

4 A No.

5 Q What is the difference? Tell me.

6 A Brake shoe, to me, means the shoe itself,  
7 the metal component, table and backing plate. Brake  
8 lining is the lining that is attached to the shoe.

9 Q What is the brake pad?

10 A That's another description for the lining.

11 Q What facilities of the six that you named  
12 make heavy-duty brake shoes?

13 MR. MIKULA: At what point in time?

14 BY MR. ROUSSEL:

15 Q From 1970 on.

16 A All of them did at some -- could you repeat  
17 the question again.

18 Q From 1970 on, which of the six facilities  
19 that you named made heavy-duty brake shoes for  
20 trucks, trailers, that type of operation?

21 A Heavy-duty brake shoes were manufactured at  
22 various points in time in Kenton, Tilbury, Battle

1 Creek and York.

2 Q What about heavy-duty brake linings?

3 A None of them -- I'm sorry, linings were  
4 manufactured in our York, South Carolina facility.

5 Q From what point in time?

6 A Approximately 1985.

7 Q The ones manufactured in York, South  
8 Carolina, were those asbestos or nonasbestos linings?

9 A Nonasbestos.

10 Q Of the six facilities that you named  
11 earlier, did all of those particular manufacturing  
12 facilities, from 1970 on, make asbestos-containing  
13 brake linings and brake shoes?

14 A None of the facilities made  
15 asbestos-containing brake linings.

16 Q Which ones assembled asbestos-containing  
17 brake linings?

18 A The Battle Creek, Kenton, Ashtabula,  
19 Tilbury -- I don't recollect, and I am uncertain as  
20 to whether Florence assembled asbestos-containing  
21 linings or not.

22 Q The Kenton Ohio distribution facility

1 closed, in what you said, 1976, as a distribution  
2 center. Were they receiving parts from the other  
3 five facilities to distribute to the -- I guess the  
4 rest of the country?

5 A Some of the other facilities were not in  
6 existence at the time that Kenton ceased to be a  
7 distribution center.

8 I am unaware of the internal distribution  
9 from other plants, so I can't answer the question  
10 beyond that.

11 Q The Florence distribution center, was it  
12 the distribution center for the entire country, for  
13 Rockwell?

14 A When?

15 Q From 1970, or whenever it opened, to  
16 present.

17 A It was not open in 1970.

18 Q When did it open?

19 A 1976.

20 Q So in 1976 on, was it the distribution  
21 center for the entire company?

22 A At some points in time, yes, for the United

1 States?

2 Q Yes.

3 A Yes. Then the Hayward facility, as I  
4 previously mentioned, was a satellite distribution  
5 center for West Coast operations.

6 Q Okay. You said in some points in time it  
7 was the distribution center for the United States.

8 At what other points in time was it not?

9 A During the points in time that the Hayward  
10 facility existed, certain distribution was made out  
11 of that Hayward facility.

12 Q Basically, the Florence facility was the  
13 main facility for Rockwell?

14 A Main distribution center.

15 Q Main distribution center, yes.

16 A That is correct.

17 Q If someone in Louisiana was going to order  
18 parts from Rockwell, where would they be ordering  
19 those parts?

20 A What type of customers?

21 Q Automotive parts, brake assemblies which  
22 contained brake linings.

1 A What type of customers?

2 Q Automotive customer -- when you say what  
3 type of customer, someone who handled automotive  
4 brake parts, automobile parts.

5 A They could be ordered against any  
6 facilities.

7 Q You could actually order from the  
8 distribution center, you could order from the  
9 manufacturing facility direct?

10 A Depending upon the type of customer that  
11 you are.

12 Q If I was in Louisiana, and I was a  
13 wholesaler of Heavy Duty brake parts, could I order  
14 those from the Florence facility?

15 A Yes.

16 Q Could I order them from any other facility?

17 A No.

18 Q Why not?

19 A Because, with its formation in 1976, that  
20 type customer would order its parts from the Florence  
21 distribution center. The other facilities were  
22 responsible for the sale of production parts.

1 Q To other manufacturers?

2 A Correct, to OEMs.

3 Q When you say OEM, what does that mean?

4 A Original equipment manufacturer.

5 Q Like General Motors?

6 A Like General Motors.

7 THE WITNESS: May I take a five-minute  
8 break?

9 MR. ROUSSEL: Sure. Off the record.

10 (Recess.)

11 BY MR. ROUSSEL:

12 Q Back on the record.

13 So, I just want to clarify, basically all  
14 nonoriginal part vendors would have to purchase from  
15 the distribution center; is that correct?

16 MR. MIKULA: Could you repeat the  
17 question.

18 BY MR. ROUSSEL:

19 Q All nonoriginal parts, such as GM, Ford,  
20 Ford --

21 A Manufacturers.

22 Q -- manufacturers would have to purchase

1 their parts from the Florence distribution center or  
2 the one that was in California at one time?

3 A Production parts were shipped from our  
4 production facilities; aftermarket parts were shipped  
5 from our aftermarket facility, primarily in Florence  
6 or Hayward or the other ones.

7 Q When you say aftermarket parts, are we  
8 talking about repair items, something that would not  
9 go in an original-manufactured vehicle?

10 A Repair item could be a part which is also a  
11 part of an original assembly, which is sold to  
12 somebody.

13 Q Those would be sold directly from the  
14 manufacturer?

15 A Could you clarify your question?

16 Q I am trying to find out if organizations  
17 other than facilities that made automobiles like GM,  
18 or made trailers, made trucks, could purchase  
19 directly from one of these facilities, any parts, or  
20 did they have to go through Florence?

21 A Would you repeat the question or read it  
22 back.

1 Q Yes. Did anyone, other than an original  
2 manufacturer, purchase stuff from a production  
3 facility and not from Florence?

4 A No, not at the time after Florence came  
5 into existence.

6 Q Let me ask you if you are familiar with any  
7 distribution by Rockwell to -- and I am going to name  
8 some companies -- Fruehauf Corporation. Do you know  
9 if you guys sold any parts, Rockwell sold any parts  
10 to Fruehauf Corporation?

11 When I say parts, we are talking about  
12 brake linings, brake pad, brake shoe assemblies, that  
13 type of stuff.

14 A I don't know.

15 Q How about to NAPA?

16 A I don't know.

17 Q How about Rayloc Corporation?

18 A I don't know.

19 Q How about an organization called Riverside  
20 Truck Parts?

21 A I don't know.

22 Q How about Haygood Corporation?

1 A Sounds familiar, but I don't know.  
2 Q Trailmobile Company?  
3 A I don't know.  
4 Q Fontaine Corporation?  
5 A I don't know.  
6 Q New Way Company?  
7 A The name sounds familiar, but I don't  
8 know.  
9 Q New Life Corporation?  
10 A Same sounds familiar, but I don't know.  
11 Q Fleet Parts and Equipment Company?  
12 A I don't know.  
13 Q Heavy Duty Parts & Equipment?  
14 A Name sounds familiar, but I don't know.  
15 Q Did Rockwell manufacture any  
16 asbestos-containing parts?  
17 A Would you clarify your question.  
18 Q Did Rockwell manufacture any  
19 asbestos-containing brake parts, such as brake pads,  
20 brake linings, brake shoes?  
21 A We assembled linings to shoes. We did not,  
22 other than our York facility, manufacture linings.

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1 Q The York facility made nonasbestos parts;  
2 is that correct?

3 A That is correct.

4 Q What about facilities manufacturing clutch  
5 assemblies or clutch disks?

6 A No.

7 Q Does Rockwell at any facility make clutch  
8 parts?

9 A Yes.

10 Q What facility is that?

11 A At what period of time?

12 Q 1970 on.

13 A At one point in time, they were  
14 manufactured or assembled in Florence, Kentucky, and  
15 another point in time in Laurinburg, one of the  
16 Carolinas, I can't recall which.

17 Q Do you know whether or not the clutch disk  
18 or facing that was being assembled contained any  
19 asbestos products?

20 A Yes, I do know.

21 Q During what period of time did those  
22 particular items contain asbestos products?

1 A They never contained asbestos products.

2 Q Oh, they did not.

3 Did Rockwell International Corporation

4 purchase any products from Allied Signal,

5 Incorporated, any asbestos-containing products, --

6 A I don't know.

7 Q -- which is also the successor to Bendix  
8 Corporation?

9 A I don't know.

10 Q Did Rockwell sell any products to Allied  
11 Signal, Incorporated?

12 A I don't know.

13 Q How about the Bendix Corporation?

14 A I don't know.

15 Q Did Rockwell purchase any products from  
16 Abex Corporation?

17 A Yes.

18 Q During what period of time did Rockwell  
19 purchase products from Abex, products being brake  
20 shoes, brake linings, brake pads,  
21 asbestos-containing?

22 A I don't know the years.

1 Q Are they presently still buying those  
2 products from Abex Corporation?

3 A Asbestos-containing?

4 Q Yes.

5 A No.

6 Q Do you know when they discontinued buying  
7 asbestos-containing products from Abex Corporation?

8 A Asbestos-containing?

9 Q Yes.

10 A Approximately 1987.

11 Q Does Rockwell sell any products to Abex  
12 Corporation?

13 A I don't know.

14 Q Up until 1987, do you know the types of  
15 products that Rockwell purchased from Abex  
16 Corporation?

17 A Brake linings.

18 Q Did Rockwell ever buy any products from  
19 B. F. Goodrich Company?

20 Again, when I say products, I am talking  
21 about brake linings, brake shoes, brake pads,  
22 asbestos-containing.

1 A I don't know.

2 Q Did Rockwell ever sell any products to  
3 B. F. Goodrich Company?

4 A I don't know.

5 Q Did Rockwell ever buy any parts from  
6 Borg-Warner Corporation, B-O-R-G?

7 A I don't know.

8 Q Do you know if they ever sold any products  
9 to that corporation?

10 A I don't know.

11 Q Did Rockwell ever buy any parts from Motion  
12 Control Industries, a division of Carlisle  
13 Corporation?

14 A The name sounds familiar, but I am  
15 uncertain.

16 Q Do you know if Rockwell ever sold any parts  
17 to Motion Control Industries?

18 A I don't know.

19 Q Did Rockwell ever buy any parts from Ford  
20 Motor Company?

21 A I don't believe so.

22 Q Did Rockwell ever sell parts to Ford Motor

1 Company?

2 A Yes.

3 Q Through today, has Rockwell sold parts to  
4 Ford Motor Company?

5 A Yes, excuse me --

6 MR. MIKULA: What do you mean by "parts"  
7 again?

8 MR. ROUSSEL: Again, we want to define.

9 BY MR. ROUSSEL:

10 Q Asbestos-containing brake linings, brake  
11 pads, brake shoes.

12 MR. MIKULA: Are you talking about  
13 continuously throughout this period?

14 MR. ROUSSEL: Well, whatever period of  
15 time.

16 THE WITNESS: Could you repeat the  
17 question?

18 MR. ROUSSEL: Yes.

19 BY MR. ROUSSEL:

20 Q Has Rockwell sold any parts to Ford Motor  
21 Company from 1970 up through today? If at certain  
22 periods of time, tell me what periods of time.

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1 A Over that period of time, we sold  
2 asbestos-containing brake parts to Ford Motor  
3 Company. I don't know when during that period of  
4 time, and I want to quantify that.

5 Q Do you know approximately when Rockwell  
6 discontinued selling asbestos-containing parts to  
7 Ford Motor Company?

8 A The approximate date would be in the late  
9 80s or early 90s, to the best of my knowledge.

10 Q Does Rockwell still assemble brake parts  
11 with asbestos-containing materials?

12 A To the best of my knowledge, we do not  
13 today.

14 Q Do you know when that was totally  
15 discontinued?

16 A I believe it was last year.

17 Q Does Rockwell buy -- from 1970 on, any  
18 products, any definition we used, from Fruehauf  
19 Corporation, F-r-u-e-h-a-u-f?

20 A Not that I am aware of.

21 Q Has Rockwell sold any products to that  
22 company?

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1 A Not that I am aware of.

2 Q Has Rockwell brought any parts from General  
3 Motors Corporation?

4 A Not that I am aware of.

5 Q Has Rockwell sold any parts to General  
6 Motors Corporation?

7 A Yes.

8 Q From 1970 through today, could you tell me  
9 about those sales of asbestos-containing products.

10 A They were sold to them over some given  
11 period of time during that period of time that you  
12 had mentioned, not for all the years.

13 Q And did you discontinue, approximately, the  
14 sale of those asbestos-containing products at about  
15 the same time that you discontinued the sale to Ford  
16 Motor Company?

17 A To the best of my knowledge.

18 Q Did Rockwell buy any parts from Midland  
19 Heavy-Duty Systems, successor to Gray Rock Brake  
20 Company?

21 A Not that I am aware of.

22 Q Did Rockwell sell any parts to Midland

1 Heavy-Duty Systems or to Gray Rock Brake Company?

2 A Not that I am aware of.

3 Q Did Rockwell buy any parts from Rayloc,  
4 Incorporated?

5 A Not that I am aware of.

6 Q Did Rockwell sell any parts to Rayloc  
7 Corporation?

8 A Not that I am aware of.

9 Q Did Rockwell buy any parts from Ray Mark  
10 Friction Company?

11 A Not that I am aware of.

12 Q Did you sell any parts to Ray Mark Friction  
13 Company?

14 A Not that I am aware of.

15 Q Let me ask you, you had mentioned earlier  
16 that you are not aware of certain sales. Does that  
17 mean it didn't happen, or just that you don't have  
18 any knowledge of it personally?

19 A As I sit here today, to the best of my  
20 memory, I have no knowledge.

21 Q That doesn't mean Rockwell may or may not  
22 have done it; is that correct?

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1 A That is correct.

2 Q Does the distribution -- strike that.

3 Does Rockwell have, I guess,  
4 subdistribution centers that might be under this  
5 Florence facility in different states?

6 A Owned by Rockwell?

7 Q Yes.

8 A The Hayward facility in California That  
9 existed at one point in time.

10 Q Any other ones that you know of?

11 A The other North American one is the one at  
12 Brampton, Ontario.

13 Q That is it?

14 A That is it.

15 Q The Florence distribution, did it sell to  
16 anyone who placed an order, or did it have to be a  
17 certain type of company, wholesaler, retailer, did it  
18 have to be just any individual ordering these parts?  
19 What qualified someone to order parts from that  
20 Florence facility?

21 A They had to be an approved customer.

22 Q What criteria was it to get approval?

1 A I don't know.

2 Q Who approved those particular customers?

3 A I am uncertain exactly.

4 Q While you were at the Florence facility, do  
5 you remember any other sales to other than  
6 wholesale-type operations, such as other suppliers or  
7 other distributors which might be independent, some  
8 people call them jobbers, maybe?

9 A Warehouse distributors?

10 Q Right, warehouse distributors. Do you  
11 remember any sales to individual-type companies, or,  
12 when I say individual, those that are doing the work  
13 themselves, or was it always to another  
14 warehouse-type distributor, or a jobber, as someone  
15 might call it, like a NAPA facility?

16 A The Florence facility sold to WDs and  
17 OEMs.

18 Q And no one else that you know?

19 A No one else that I am aware.

20 Q Let me ask you about, did the Florence  
21 facility receive any parts directly from any supplier  
22 of brake linings other than Rockwell?

1           A       I am uncertain.

2           Q       Did the Florence facility ever receive any  
3 products that it put its name on, and actually  
4 relabeled the product as a Rockwell product? Again,  
5 we are talking about brake pads, brake linings and  
6 brake shoes.

7           A       Could you repeat the question.

8           Q       Did the Florence facility ever receive any  
9 products that it may have relabeled as its own that  
10 it received directly from a supplier and sent to a  
11 distribution facility and sold to distributions  
12 facility, WD, the wholesale distributor?

13          A       Product that we received from other  
14 manufacturers, we put into Rockwell boxes, and those  
15 boxes had Rockwell labels on them?

16          Q       Which manufacturers that you can  
17 remember -- and we might have covered some this  
18 morning -- that you received those types of products,  
19 actually relabeled them and put them in Rockwell  
20 boxes, such as Abex.

21                   MR. CALI: Object to the form.

22                   THE WITNESS: To the extent that product

1 was boxed, it was all products placed and labeled in  
2 Rockwell boxes and labeled with the Rockwell label.

3 BY MR. ROUSSEL:

4 Q When you were at the Florence facility, do  
5 you remember ordering and receiving any Abex brake  
6 linings or brake pads or brake shoes that you  
7 relabeled as a Rockwell product and put in your  
8 boxes?

9 A To the extent that we would have received  
10 Abex product, right, and would have packaged it, it  
11 would have generally -- would have been in a Rockwell  
12 box, in a box that had a Rockwell label.

13 Q Did the Florence facility order those types  
14 of individual items such as Abex brake linings?

15 A I am uncertain. From Abex?

16 Q Yes, Abex.

17 A I am uncertain.

18 Q Do you remember if the Florence facility,  
19 when you were working there, ordered any products  
20 from Motion Control Industries and relabeled those?

21 A I am uncertain.

22 Q When I say Motion Control, do you

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1 understand that can also be Carlisle Corporation; is  
2 that correct?

3 A No.

4 Q Then I will ask the next question. Do you  
5 know if the Florence facility ever received any brake  
6 linings from Carlisle Corporation that it relabeled  
7 and placed in the boxes?

8 A To the extent that they would have received  
9 Carlisle linings, they would have been placed, as all  
10 the other product was, in Rockwell boxes and labeled  
11 with a Rockwell label.

12 Q Was it the normal practice of that Florence  
13 facility to order brake linings from suppliers and  
14 place them in Rockwell boxes?

15 MR. MIKULA: Objection, vague.

16 THE WITNESS: I don't recall whether we  
17 ordered the linings directly from the lining  
18 manufacturer. However, linings that were received  
19 there would have been -- as with the other product,  
20 would have been placed in Rockwell boxes and labeled  
21 with a Rockwell label.

22 BY MR. ROUSSEL:

1 Q My understanding is that Rockwell did not  
2 manufacture any asbestos brake linings; is that  
3 correct?

4 A That's correct.

5 Q Did Rockwell manufacture any brake linings  
6 at all except at the South Carolina facility?

7 A No.

8 Q So any product that you would have  
9 received, as far as an asbestos brake lining, at the  
10 Florence facility would have been from an outside  
11 vendor; is that correct?

12 A No.

13 Q How is that incorrect?

14 A The linings may have come to the Florence  
15 facility from one of our production facilities.

16 Q But the production facility actually didn't  
17 make that product?

18 A That's correct.

19 Q It actually was manufactured by some other  
20 third party?

21 A That is correct.

22 Q Now, the Florence facility, would they

1 relabel -- if they would have come in, were they  
2 relabeling asbestos-containing brake linings?

3 A Could you define "relabeling."

4 Q Putting them in a Rockwell box.

5 A Yes.

6 Q How long did that continue?

7 A For the period of time for which we were  
8 Rockwell, and for the period of time for which we  
9 were distributing or boxing asbestos-containing  
10 products.

11 Q And Rockwell continues to sell brake  
12 linings, just the linings themselves, today, is that  
13 correct?

14 A Could you repeat that.

15 Q Does Rockwell continue to sell brake  
16 linings, just the lining, today?

17 A Meritor does, yes.

18 Q Meritor, excuse me. And then Rockwell, of  
19 course, continued until 1997 to sell brake linings?

20 A That is correct.

21 Q What were the particular uses for those  
22 brake linings?

1 A Out of which facility?

2 Q Out of the distribution, Florence,  
3 facility.

4 A Those were service and repair parts.

5 Q Did Rockwell do any type, at any of these  
6 facilities, any type of remanufacturing of brake  
7 parts?

8 MR. MIKULA: Objection, vague. Not to the  
9 best of my knowledge.

10 BY MR. ROUSSEL:

11 Q Were you familiar with Abex Corporation;  
12 are you familiar with that name?

13 A I know the name.

14 Q Do you know if it's the same company as  
15 American Brake Blok, B-l-o-k?

16 A I don't know.

17 Q Now, let's see, we are going to start  
18 getting into all of these documents.

19 MR. ROUSSEL: Off the record.

20 (Discussion off the record.)

21 MR. MIKULA: This is Tom Mikula, for those  
22 of you on by conference call. I will ask my

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1 secretary to make arrangements to have another  
2 conference call convened in approximately one hour;  
3 is that okay?

4 MS. ECHOLS: Yes, that's fine.

5 MR. KNIGHT: That's fine.

6 MR. PERRY: That's fine.

7 MR. KNIGHT: That's fine, but if you would  
8 tell your secretary to notify Bill Brockman in my  
9 office, because I am headed out to another  
10 deposition.

11 MR. MIKULA: Could you give me your number,  
12 please.

13 MR. PERRY: (504) 834-2612. I appreciate  
14 it very much.

15 (Whereupon, at 11:55 a.m., the deposition  
16 was recessed, to be reconvened at 1:00 p.m. this same  
17 day.)

18

19

20

21

22

1 AFTERNOON SESSION (1:07 p.m.)

2 Whereupon,

3 BRUCE KETCHAM

4 resumed the stand and, having been previously duly  
5 sworn, was examined and testified further as follows:

6 MR. ROUSSEL: Everyone there?

7 MS. ECHOLS: Yes.

8 MR. BROCKMAN: Yes, yes.

9 MR. PERRY: Yes.

10 BY MR. ROUSSEL:

11 Q Mr. Ketcham, I missed a couple of companies  
12 I wanted to go back and cover with you earlier.

13 Did Rockwell International Corporation ever  
14 purchase any parts from United Brake Systems,  
15 Incorporated?

16 A Not that I am aware of.

17 Q Do you know if Rockwell International ever  
18 sold any parts to United Brake Systems, Incorporated?

19 A Not that I am aware.

20 Q Did Rockwell International ever purchase  
21 any parts from Prattville Manufacturing,  
22 Incorporated?

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1 A Not that I am aware of.

2 Q Do you know if Rockwell ever sold any parts  
3 to Prattville Manufacturing, Incorporated?

4 A Not that I am aware of.

5 Q Do you know if Rockwell ever purchased any  
6 parts from Genuine Parts Company?

7 A Not that I am aware of.

8 Q Do you know if Rockwell ever sold any parts  
9 to Genuine Parts Company?

10 A Not that I am aware.

11 Q Do you know if Rockville ever bought any  
12 parts from Raymark Industries, Incorporated?

13 A Not that I am aware of.

14 Q Do you know if Rockwell ever sold any parts  
15 to Raymark Industries, Incorporated?

16 A Not that I am aware of.

17 Q I am just going to mark for the record the  
18 notice of deposition of Mr. Bruce Ketcham scheduled  
19 for today at 10:00 a.m., as Exhibit Number 1.

20 (Ketcham Exhibit 1 identified.)

21 BY MR. ROUSSEL:

22 Q Mr. Ketcham, I want you to look at a

1 memorandum I received from an attorney for Rockwell,  
2 name of Hugh Glenn. Could you look at this, and tell  
3 me if you had any input into coming up with a chart  
4 that's on page 2 of the memorandum.

5 A Yes.

6 Q What input did you have in coming up with  
7 these particular quantity of brake shoes and air disc  
8 brake lining kits?

9 A I believe that I provided the basic data  
10 that allowed that particular compilation.

11 MR. ROUSSEL: I want to attach that  
12 document as Ketcham Number 2.

13 (Ketcham Exhibit 2 identified.)

14 BY MR. ROUSSEL:

15 Q Mr. Ketcham, I want to show you another  
16 document that was presented to me this morning, I  
17 think, which reflects more details of what's been  
18 shown on this chart.

19 Could you tell me exactly what this  
20 particular document reflects.

21 A This indicates sales by part number to  
22 customers here, Fleet Parts, Heavy Duty Parts --

1 their address and names, I believe, are more  
2 completely reflected in the other document -- and  
3 spreads the sales to them across from '78 through '92  
4 when they occurred by year.

5 Q Again, you had input into development of  
6 this document?

7 A Yes.

8 Q Let me ask you, what other wholesale  
9 distributors did you research besides Fleet Parts and  
10 Heavy Duty Parts?

11 A As I recall, there was a question, I  
12 believe it was in a -- either interrogatory or  
13 document request, that elicited several company  
14 names, and we researched against those company  
15 names.

16 Q Of those names, these are the only two that  
17 you found sales to?

18 A Those were the two, although I believe that  
19 perhaps the corporate names didn't exactly match the  
20 names that were requested. These were the sales to  
21 these two entities.

22 Q I want to attach this as Ketcham Number 3.

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1 Looking at the part numbers here, do you note whether  
2 or not particular kits or parts contained asbestos,  
3 as far as the brake linings, brake shoes, brake pads,  
4 if any?

5 A Yes, that was the purpose of the search, to  
6 identify part numbers that contained  
7 asbestos-containing materials.

8 (Ketcham Exhibit 3 identified.)

9 BY MR. ROUSSEL:

10 Q Do all of those particular part numbers  
11 here contain those identified materials?

12 A Yes.

13 Q Mr. Ketcham, I am going to show you what's  
14 been identified by a Bates stamp number as RD 00004.  
15 Would you tell me what this particular item is, what  
16 that material data sheet identifies.

17 A It's a material safety sheet for disk brake  
18 linings.

19 Q Was that an alternative product to:  
20 asbestos-containing brake linings?

21 A Could you repeat the question?

22 Q Was that an alternative product that was

1 being used at that time to asbestos-containing brake  
2 linings?

3 A This is for air disc brakes, the pads for  
4 air disc brakes.

5 Q At the time, did the pads for air disc  
6 brakes contain asbestos?

7 A The pads on air disc brakes at one time  
8 contained an asbestos backing material. However, the  
9 lining material itself has always been made of  
10 nonasbestos materials.

11 Q To your knowledge, does the pads on air  
12 disc brakes ever wear down to the backing materials?

13 A In normal use, it would not.

14 Q What do you mean by normal use, could you  
15 define them.

16 A The pads are supposed to be replaced when  
17 they reach certain wear limits, and as long as the  
18 pads are replaced at that point in time, the backing  
19 plates should not be exposed.

20 Q What is the backing plate?

21 A Or backing material, excuse me.

22 Q Could you describe to me the backing

1 material. What is that?

2 A I believe it is a type of mesh material to  
3 which the lining material is attached, it supplies  
4 the backing or basis or bonding strength to that  
5 pad.

6 Q Is it actually bonded to the disc brake  
7 itself or, I mean, the air brake itself, or is it  
8 another material used to bond the backing material to  
9 the disc brake -- I mean, to the air brake?

10 A The backing material is incorporated in the  
11 air disc brake pad.

12 Q How thick is that material?

13 A Which material?

14 Q The backing material.

15 A It's relatively thick. I don't know the  
16 dimensions.

17 Q When you say thin, quarter inch, 1/8 inch,  
18 1/16?

19 A I don't know the dimensions.

20 MR. ROUSSEL: I would like to attach this  
21 document as Number 4.

22 (Ketcham Exhibit 4 identified.)

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1 BY MR. ROUSSEL:

2 Q I am going to show you a document which  
3 says "Material Data Sheet for Bonding Strip on Disc  
4 Brakes." Would you describe to me what a bonding  
5 strip on a disc brake is. Would you take a look at  
6 that document.

7 A This is the backing strip that I was  
8 referring to in my prior testimony.

9 MR. ROUSSEL: Thank you.

10 I would like to mark that as Ketcham Number  
11 5.

12 (Ketcham Exhibit 5 identified.)

13 BY MR. ROUSSEL:

14 Q Do you know at what time Rockwell  
15 discontinued using asbestos-containing backing  
16 material?

17 A Not precisely.

18 Q Approximately?

19 A My estimate would be in the late '80s or  
20 early '90s.

21 Q What type of brake assemblies does this  
22 backing material come on? Did it come on the lining

1   itself?

2           A       It was embedded in the lining material  
3   itself.

4           Q       Who put that material on the lining?

5           A       The lining manufacturer.

6           Q       Did Rockwell ever manufacture any backing  
7   material?

8                   MR. MIKULA:  You mean asbestos-containing  
9   backing material?

10                  MR. ROUSSEL:  Yes.

11                  THE WITNESS:  No.

12                  BY MR. ROUSSEL:

13           Q       I would assume that Rockwell did  
14   manufacture backing material at the South Carolina  
15   location at some part in time?

16           A       I am not certain.

17                   (Ketcham Exhibit 6 identified.)

18                  BY MR. ROUSSEL:

19           Q       I am going to show you what's been marked  
20   as Ketcham Exhibit 6.  Will you tell me what this  
21   document is identified by RD 00047, as far as the  
22   Bates stamp and continuing thereafter?

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1           A     It's a material safety data sheet, appears  
2 to be for Motion Control Industries, a division of  
3 Carlisle Corporation.

4           Q     Does that document reflect anyplace that  
5 Rockwell actually purchased this particular item from  
6 Motion Control Industries?

7           A     No, it does not.

8           Q     How about the first page of this particular  
9 document identified as RD 00046?

10          A     Yes.

11          Q     It does indicate that Rockwell does buy  
12 this product from Motion Control Industries; is that  
13 correct?

14          A     The document speaks for itself. It says,  
15 "Enclosed are material safety data sheets for brake  
16 linings which are used on trailer axles sent to your  
17 company, amongst other things."

18          Q     Does this particular -- what particular  
19 product is identified on this material safety data  
20 sheet?

21          A     The material safety data speaks of brake  
22 lining, has after that CAS No. 1332214, and a trade

1 name, and synonyms listing Carlisle brake lining.

2 Q Does that material data sheet identify that  
3 that particular brake lining contains asbestos?

4 A There is a statement here that states,  
5 "This compound contains asbestos with varying  
6 percentage in individual product formulas."

7 MR. ROUSSEL: I am going to attach that as  
8 Exhibit Number 6.

9 MR. CALI: Off the record.

10 (Ketcham Exhibit 6 identified.)

11 (Discussion off the record.)

12 EXAMINATION

13 BY MR. CALI:

14 Q Mr. Ketcham, again, my name is Mike Cali.  
15 I am here for Abex and Motion Control.

16 Referring to Exhibit 6, that we have  
17 previously discussed, was this document produced in  
18 connection with the written discovery response in  
19 this case by Rockwell?

20 A I don't know.

21 Q You don't know where it came from?

22 A No.

1 Q Do you know what product the MSDS refers  
2 to, in particular, brake linings on an axle; are you  
3 familiar with that type of product?

4 A Would you reask the question, compound.

5 Q The way it's phrased, a brake lining on an  
6 axle seems to be kind of an unusual application. I  
7 just want to know if you are familiar with that, and  
8 could you tell me a little bit about it, if you are.

9 A Yes.

10 Q Could you, please.

11 A In some instances, when we manufactured our  
12 axles, be they trailer axles or front axles or drive  
13 axles, we assembled the brake components and bearing  
14 configurations on that axle and shifted to a  
15 production customer.

16 Q The brakes in question are designed to  
17 provide friction to the axle itself and not to a  
18 brake drum or well?

19 A No, it's to apply the friction product  
20 against a drum or against a disc. However, they are  
21 mounted to a brake spider, which is attached to the  
22 axle.

1 Q Is the product that's referred to in this  
2 MSDS a product that Rockwell sold as opposed to its  
3 own business for use in its trucks, for instance, or  
4 do you know?

5 A We have a very limited truck fleet in our  
6 sales. The cover letter appears to indicate that it  
7 was sent to people because it was sold to them as  
8 customers.

9 Q So what you are saying is it was probably  
10 an item that Rockwell sold at one point or another?

11 A That would be my interpretation, yes.

12 Q The exhibit that you produced previously,  
13 Number 3, which I think listed several part numbers  
14 identified as having been sold at one time or another  
15 to either Fleet Parts or Heavy Duty Parts, does this  
16 product -- when I say this product, I mean the one  
17 referenced in Exhibit Number 6, the MSDS -- does this  
18 product appear in the list that you have given us in  
19 Exhibit 3, or can you tell?

20 A Can I tell from Exhibit Number 3 in  
21 comparison to Exhibit Number 6?

22 Q You cannot tell?

1 A From those two exhibits, I cannot tell.

2 Q Do you know, of your own knowledge, whether  
3 or not this Exhibit Number 6 product is one of the  
4 products that we would identify as possibly being --  
5 having been sold to Fleet Parts or Heavy Duty in  
6 Exhibit Number 3.

7 A As I sit here, no, I do not know.

8 Q Is that information obtainable?

9 A I believe it was obtainable.

10 Q It was at one time? I'm sorry.

11 A Yes. I don't understand your question.

12 Q You mean it's no longer obtainable?

13 A No.

14 Q Okay.

15 A No, it's not --

16 Q Okay.

17 A Ask your question again.

18 Q Can we find out whether or not the products  
19 listed in Exhibit Number 6 are also referenced in  
20 Exhibit Number 3?

21 A I am uncertain because the data sheet right  
22 there does not list lining mixes.

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1           Q     So you can't testify as to whether or not  
2 this product in Exhibit Number 6 ever got to Fleet  
3 Parts or Heavy Duty, can you?

4           A     No.

5           Q     The product that we discussed, sold by  
6 Rockwell where the brake linings were sold in  
7 connection with or attached to the axle, somewhere or  
8 another, is that, in your belief, is that a rare  
9 situation, or was it very common, or can you say  
10 whether or not axles were generally sold attached to  
11 brakes and vice versa?

12                     It just strikes me -- I am not an expert on  
13 those types of parts, but it strikes me as kind of a  
14 rare situation. Can you tell me or not whether or  
15 not that's correct?

16          A     What is your definition of "rare"?

17          Q     Okay, uncommon. The other way around would  
18 be more common, whether the two components were sold  
19 separately.

20          A     It would be more common for the products to  
21 be sold separately.

22          Q     Can you tell me whether or not the

1 application where they are sold together was destined  
2 for any particular brand of vehicle? For instance,  
3 was it only sold for Ford trucks or a type of truck,  
4 like only flatbed trucks?

5 Do you understand what I am getting at?  
6 Was it across-the-board, light, medium, heavy-duty  
7 trucks, et cetera?

8 A It would probably be more prevalent for the  
9 small vehicle OEMs to purchase their products with  
10 brakes attached. The larger OEMs that we sold to,  
11 the Fords, GMs, Volvos, major truck manufacturers,  
12 typically, got their axles and brakes separately.

13 Q Would this particular product have been one  
14 that would have been sold almost exclusively to an  
15 OEM as opposed to for aftermarket use?

16 A Could you repeat the question.

17 Q Yes. Would this axle brake union product  
18 have been one that Rockwell would have sold to an OEM  
19 for use in the construction of a vehicle --

20 A Yes.

21 Q -- as opposed to the exclusion of sold over  
22 the counter to a place like Heavy Duty or Fleet Parts

1 to be used to repair a vehicle? Or either, could it  
2 be either way?

3 A To Heavy Duty, Fleet Parts, or replace  
4 Heavy Duty or Fleet Parts?

5 Q The latter, the to replace Heavy Duty or  
6 Fleet Parts.

7 A It is possible that the distributor of  
8 trailer and brake parts may get a trailer axle that  
9 already had the brakes on them. That is probably, in  
10 my opinion, less common than more on them.

11 Q You referenced smaller OEMs. Can you give  
12 me an example -- do you mean smaller vehicles or a  
13 smaller company?

14 A A smaller company, manufacturing vehicles.

15 Q Can you give me an example?

16 A Not as I sit here.

17 Q Mack Truck, for instance, would that be  
18 larger or smaller?

19 A That would be a larger.

20 MR. CALI: That's all I have, thank you.

21 EXAMINATION CONTINUED

22 BY MR. ROUSSEL:

1           Q     Mr. Ketcham, I want to show you what will  
2 been marked as Ketcham Exhibit 7. Can you tell me  
3 what the document represents and whether you  
4 recognize the individuals at the bottom as Rockwell  
5 employees?

6           A     Your question again, please.

7           Q     Yes. Do you recognize the people at the  
8 bottom of the document as Rockwell employees?

9           A     Some of the names I recognize as being  
10 Rockwell employees.

11          Q     What does this document -- what is the  
12 purpose of this particular document, which we are  
13 going to mark as Exhibit Number 7?

14          A     I believe the document speaks for itself.  
15 The title is "New OSHA Asbestos Hazard Regulation."

16          Q     I think the document reflects that starting  
17 in February of 1986, Rockwell will begin to send out  
18 material safety data sheets on all of its asbestos  
19 linings to its customers; is that what this document  
20 reflects -- or to its aftermarket customers, anyway?

21          A     As the first sentence states, "As you are  
22 aware, the new MSDS asbestos regulation affects our

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1 service business, as we supply asbestos linings for  
2 the aftermarket."

3 Q Let me ask you, do you know if Rockwell was  
4 sending out MSDS sheets to this particular directive,  
5 to its aftermarket customers.

6 A I do not know, however, this speaks of a  
7 new MSDS regulation, so it is quite possible that  
8 this came about as the effect of a new regulation.

9 BY MR. ROUSSEL:

10 Q I want to show you what's going to be  
11 marked as Ketcham Exhibit 8. Could you take a look  
12 at this document and tell me what its purpose is.

13 A Again, the document speaks for itself. The  
14 cover letter that is attached to the balance of the  
15 documents indicating that we are transmitting certain  
16 material safety data sheets to our customers in  
17 compliance with the OSHA Hazard Communication  
18 Standards CFR 1910.1200.

19 Q That particular letter is in compliance  
20 with the directive of Exhibit Number 7 that you  
21 looked at earlier?

22 A I can't speak --

1 MR. MIKULA: Do you want to read this  
2 document again?

3 THE WITNESS: No, I have seen it.

4 I can't speak to the interrelationship of  
5 the two documents other than that they are both  
6 discussing, at about the same period of time, the  
7 transmittal of certain MSDS sheets.

8 BY MR. ROUSSEL:

9 Q Exhibit Number 8 has Bates numbers RD 55  
10 through 73. I want to show you what is Exhibit  
11 Number 8, RD 56. Can you tell me what -- who is the  
12 manufacturer of this product, and what is it used  
13 for?

14 A The sheet appears to list Allied  
15 Corporation Automotive Sector, Bendix Friction  
16 Materials Division, and the products discussed here  
17 is a brake block formula B-4123.

18 Q What is that used for? What is that  
19 particular product; do you know?

20 A It states on its face that it's a brake  
21 block.

22 Q What is a brake block? Where is it used?

1           A     A brake block, it would be my  
2 interpretation that we are talking about a brake  
3 lining, synonymous.

4           Q     Does this particular document identify any  
5 asbestos warnings on it?

6           A     There is a caution statement listed on the  
7 document, it says, "Contains asbestos fibers. Avoid  
8 creating dust. Breathing asbestos dust may cause  
9 serious bodily harm."

10          Q     Do you know, what is the date of that  
11 document?

12               MR. MIKULA: Speaking about just that  
13 page?

14               MR. ROUSSEL: No, I think it's a two-page  
15 document.

16               THE WITNESS: The one date listed on RD  
17 00056 states that it was filed on November 1985.

18               BY MR. ROUSSEL:

19          Q     Again, I am going to show you what's part  
20 of Exhibit 8, RD 00058 through 59. Could you tell me  
21 what product is identified here.

22          A     This appears to be a material safety data

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1 sheet compiled by Motion Control Industries,  
2 Carlisle. The first sentence states that Carlisle  
3 brake lining is a resident-bonded product, so one  
4 would assume that it dealt with brake lining  
5 material.

6 Q Does it show that asbestos is a component  
7 of that particular product?

8 A Yes.

9 Q Let me ask you, there's a section here that  
10 identifies, that's called "Identify," it's a number  
11 of numbers. Could you tell me what these numbers  
12 stand for, or numbers and letters?

13 A I do not recognize them.

14 Q Do you know if there are Rockwell part  
15 numbers?

16 A They do not appear to be Rockwell part  
17 numbers.

18 Q Why is that?

19 A A Rockwell part number is generally a --  
20 particularly a part of nomenclature. These numbers  
21 here do not appear to be similar.

22 Q Do you know on which types of products this

1 particular brake lining is used at Rockwell?

2 A No.

3 Q Can you tell from that data sheet? This is  
4 a two-page document.

5 A Could you repeat the question.

6 Can you read it back.

7 (The reporter read the record as requested.)

8 THE WITNESS: No, beyond being brake  
9 lining.

10 BY MR. ROUSSEL:

11 Q I am going to show you another Carlisle  
12 safety -- material safety data sheet. Can you tell  
13 me the difference between the first one and the one  
14 that starts at RD 60 through 61, if you know.

15 A Which ones did you wish me to compare now?

16 Q This one, with the one you just previously  
17 looked at, two pages before.

18 A And the question again was?

19 Q Do you know of any difference, maybe in the  
20 application of the first to the second?

21 A The first one, starting with RD 00058,  
22 appears to be a material safety data sheet for

1 asbestos-containing brake lining; whereas, the one  
2 marked and beginning with RD 00060 appears to be a  
3 material safety data sheet for nonasbestos brake  
4 lining material.

5 Q Do you know if the two linings, being one  
6 asbestos and one not asbestos, has any different  
7 application, in other words, do they go into the same  
8 particular assemblies, or do they go into some  
9 different type of assemblies?

10 A They appear to be brake lining material,  
11 and brake lining material is used in various  
12 different applications. So, you know, there is quite  
13 possibly not a one-for-one correlation between one is  
14 over here and over here.

15 Q Let me ask you, when you say a brake lining  
16 material, when you received that material from  
17 Carlisle, from other manufacturers, does Rockwell  
18 have to do something to that material to make it fit  
19 the brake assembly, or is it molded in such a way  
20 that all you have to do is screw it in or bond it in?

21 A In what period of time are you talking  
22 about?

1 Q From 1970 to present. If it's changed,  
2 just let me know.

3 A I would say at one time it was probably  
4 reasonably prevalent that grinding of a brake lining  
5 material was required. At a later time, that  
6 grinding was no longer required, or at least was  
7 minimized.

8 Q When did grinding stop? Is that a recent  
9 development?

10 A I am not certain of an exact date.

11 Q 1990s, estimate, 1995, somewhere in there?

12 A Based upon what I recall, I believe that  
13 the elimination of grinding would have occurred,  
14 probably, in the early '80s.

15 MR. MIKULA: May we take a short break.

16 (Recess.)

17 BY MR. ROUSSEL:

18 Q Mr. Ketcham, I want to ask you a little bit  
19 about some of these other documents attached, some of  
20 these MSDS documents.

21 Attached at RD 62 there's an Abex  
22 Corporation material safety data sheet for a

1 nonasbestos product. Can you tell me, can you look  
2 at this and tell me what that product is?

3 A There is an identity section on the page  
4 that lists a number of numbers and letters.

5 Q Do you know if that's brake lining?

6 A Some of the numbers and letters appear to  
7 indicate that.

8 Q The letters and numbers that you referred  
9 to, is that Rockwell's numbering system?

10 A No.

11 Q How do you know that that is brake lining  
12 from the numbers and letters that appeared; are you  
13 familiar with those particular numbers and letters?

14 A Again, it appeared, with some of the  
15 identifications such as, as an example, ABB2569FF,  
16 that the ABB and, followed widely, FF, were some --  
17 with some numbers in there, is a common type of  
18 designation for Abex lining mix.

19 Q And the letter that references, that attach  
20 those pages, those were addressing MSDS sheets for  
21 brake linings; is that correct, the cover letter?

22 A Cover letter. Again, though, the cover

1 letter speaks for itself that we are providing new  
2 material data safety sheets from our asbestos  
3 providers.

4 Q Let me ask you about the next MSDS data  
5 sheet, RD 65 through 67. Again, it's an Abex  
6 Corporation material data safety sheet for asbestos  
7 products. It lists a number of serial numbers again,  
8 or part numbers.

9 Again, could you look at those particular  
10 part numbers and tell me what particular product this  
11 is referring to?

12 A Again, there is an identity block on the  
13 page that lists a series of numbers and letters. Its  
14 format appears to resemble lining mixes.

15 Q I am going to show you another Abex  
16 Corporation material safety data sheet at RD 71  
17 through 73. And, again, for asbestos-containing  
18 material, could you tell me what this particular -- a  
19 particular label and identities there represent?

20 A Again, they appear to have the format of an  
21 Abex lining mix.

22 Q Do you know, what is the difference between

1 this particular data sheet, that set of numbers, and  
2 the prior one shown on 65? That should be 71 there.

3 A Again, I believe that the documents speak  
4 for themselves. A reasonable, yet not thorough,  
5 comparison between the two indicates the following  
6 differences. The identity block on page 1 was with  
7 different items in it. The specific gravity in  
8 section 3 on page 1 is also different.

9 Q With respect to page 4, some of the health  
10 hazards as listed in section 6, language is slightly  
11 different.

12 I am looking at those two different  
13 sheets. Can you tell the different applications that  
14 those two different products are used in?

15 A Again, it would appear as though they are  
16 used in brake linings, and the one is for asbestos  
17 and the other appears to be for nonasbestos linings.

18 Q I think the other one is also for asbestos,  
19 is it not?

20 MR. CALI: Object to the form, Perry.  
21 There are several different products.

22 THE WITNESS: Perhaps we should separate

1 the pages.

2 BY MR. ROUSSEL;

3 Q 70 and 71.

4 A Or word-by-word analysis. Can we separate  
5 them?

6 Q I hate to separate it because that set of  
7 documents came in as a group like that; it was  
8 attached to that letter.

9 A If you are asking for my analysis and  
10 comparison from one document to the other document, I  
11 would prefer that, at least for my review purposes,  
12 that they be separated.

13 Q We can do that and staple them back.

14 A All right.

15 Q Can you tell from those specific documents  
16 what those particular linings might have been used  
17 in -- as far as products of Rockwell, those  
18 particular products linings might have been used in?  
19 If you can, we can go ahead and unstaple them.

20 A These are a pair of lining mixes. As I sit  
21 here, I do not know which particular products they  
22 were used in.

1 Q When you say "lining mixes," how can we  
2 equate a lining mix to a particular Rockwell product  
3 that might have been produced?

4 A What Rockwell product are you referring  
5 to?

6 Q Anyone that might have used that particular  
7 lining mix, that lining.

8 A The -- for a particular Rockwell lining  
9 and/or lining that would be attached to a shoe for  
10 that particular lining, we would have, in our  
11 records, the lining mix that was associated with that  
12 lining part number.

13 Q In other words, the part numbers that were  
14 identified earlier on Exhibit Number, I think it is  
15 3. Let's see if you pull it. These would equate to  
16 a lining mix; is that correct?

17 A No. These appear to be assemblies; within  
18 that assembly is a lining, all right?

19 Q All right.

20 A That lining part number that is used within  
21 these assemblies would be associated with the lining  
22 mix.

1 Q Does any particular part go with a specific  
2 kit number, or are they interchangeable parts that  
3 would go with a kit?

4 A I don't know if I can answer the question.

5 Q In other words, if I asked you for all of  
6 the part numbers in that kit, you could supply those;  
7 is that correct?

8 A That is correct.

9 Q For a specific point in time, before any  
10 engineering changes were made?

11 A That is correct.

12 Q Once you supply that particular list of  
13 parts, you could identify which particular lining mix  
14 went into that particular part number; is that  
15 correct?

16 A You can go from that particular part number  
17 of that lining to a lining mix, yes.

18 Q Mr. Ketcham, I am going to show you a list  
19 of organizations.

20 MR. CALI: Perry, before you go on, can I  
21 ask you a few questions with regard to number 8?

22 MR. ROUSSEL: Sure.

EXAMINATION

BY MR. CALI:

Q Mr. Ketcham, without doing research, you can't tell us what Rockwell parts, if any, utilized the -- either the Motion Control or the Abex materials referenced in the MSDS sheets attached globally under number 8, can you?

A As I sit here today, from my memory?

Q Yes.

A No.

Q Do you know whether or not any of those Motion Control or Abex materials were used in any of the part numbers indicated on Exhibit 3, i.e., those products sold to Heavy Duty and Fleet Parts?

A As I sit here right now?

Q Yes.

A With no additional information?

Q Yes.

A No, I don't.

Q You could find out; you just don't know at this particular deposition?

A That is correct.

1 MR. CALI: That's all.

2 MR. ROUSSEL: Off the record for a second.

3 (Discussion off the record.)

4 BY MR. CALI:

5 Q I'm sorry, let me follow up with one or  
6 two.

7 You referred to a brake lining mix, I  
8 think, we were talking about MSDS Abex?

9 A Yes.

10 Q Can you tell me how it comes. A sheet, a  
11 block, powder?

12 A As I understand, the mix is what is  
13 formulated by the lining manufacturers, and then is  
14 bonded in their factory and made into a lining or  
15 made into a lining block. So that refers to the  
16 ingredients that become the lining.

17 Q Rockwell, then, does what with that  
18 lining? Does it bind it to a backing, or a shoe, or  
19 something along those lines, before it sells it?

20 A Depending upon what it is, the lining may  
21 be sold loose, the lining may be assembled to a brake  
22 shoe and the lined brake shoe sold.

1           The lining may go into a kit with other  
2 components in them, such as rivets that are meant to  
3 attach it, and sold in that type of manner.

4           Q     In the instances where the lining is sold  
5 without attaching it to another part, does Rockwell  
6 do anything to the lining such as shape it, drill it  
7 for rivets, or in some other way machine it to make  
8 it applicable to whatever part it is intended to be  
9 used with?

10          A     During what period of time?

11          Q     Okay, well, you know, I am interested in  
12 really all relevant periods of time.

13          A     The period of time that I am familiar with,  
14 all right, that was not done with service linings.

15          Q     Service lines?

16          A     Yes. However, as I had previously  
17 testified to, at an earlier period of time, it was  
18 necessary to grind the linings in order to shape  
19 them.

20          Q     When you say it was necessary, you mean  
21 Rockwell would have done the grinding; is that  
22 correct?

1           A       For the ones that went out in production,  
2   yes.

3           Q       And so Rockwell sold some linings that it  
4   purchased from lining manufacturers without really  
5   altering the product at all?

6           A       Yes.

7           Q       Not all, just some would fit that  
8   description?

9           A       That's correct, over the extended period of  
10   time that we are talking about, correct.

11          Q       Even in the situations where the lining was  
12   not physically realtered, it was repackaged or  
13   relabeled in some way, shape or form; it was called a  
14   Rockwell product as opposed to an Abex product or  
15   Motion Control product?

16          A       I don't know if I would characterize it  
17   that way.

18          Q       Well, you are a lawyer. But when it went  
19   out, it was sold --

20          A       The material was placed in a box, the box,  
21   for service parts, said "Rockwell" on the side, and  
22   had a label that said "Rockwell" and a part number.

1 Q When you say "service parts," you mean  
2 those parts that were intended to be used by a  
3 service mechanic as opposed to parts that would have  
4 been sold to an original equipment manufacturer?

5 A That's correct.

6 MR. CALI: Thank you.

7 EXAMINATION

8 BY MR. ROUSSEL:

9 Q When you get a brake lining from a  
10 supplier, what does it look like?

11 A It is typically a light gray or light tan  
12 material, can be of various sizes, from relatively  
13 small to couple inches by, you know, a couple inches  
14 the other way, 6, 7 inches the other way, to a very  
15 large size.

16 The thickness might vary, depending upon  
17 the size of the brake that is being used.

18 Q Basically, when you get a lining, it  
19 relatively fits in the brake assembly, except for  
20 whatever machining that you are going to do to it; is  
21 that correct?

22 A When machining is required, but, otherwise,

1           A     As I sit here, I do not. However, I  
2 believe that there was a response to one of the  
3 interrogatory requests that discussed that.

4           Q     Your answer would be the same in that set  
5 of interrogatories as it would be sitting here today,  
6 if you could look at that and refresh your memory?

7           A     I have no other knowledge.

8           Q     In fact, I might show it to you, if I can.  
9 I will identify for the record as Exhibit Number 10,  
10 this is in the case of Cadei versus OCF Corporation.  
11 And out of the state of -- no -- yes, out of the  
12 State of California. It shows responses to  
13 interrogatories by Donna J. Morton, of the firm of  
14 Shea & Gardner. And it was verified by your  
15 signature, Mr. Ketcham's signature, on the 30th day  
16 of November, 1994.

17                 There is a section in here that talks about  
18 the trade associations and also the identification of  
19 the hazards associated with asbestos. Let's see if I  
20 can find it real quick.

21           MR. MIKULA: Let me state for the record  
22 that I have an objection to using interrogatories

1 that were answered in some other case, in this  
2 particular case.

3 MR. ROUSSEL: I understand. I know it's in  
4 here some place.

5 (Ketcham Exhibit 10 identified.)

6 BY MR. ROUSSEL:

7 Q Do you remember working with counsel to  
8 answer these particular interrogatories?

9 A Do I have an independent memory?

10 Q Yes.

11 A Not as I sit here. I recognize the case.

12 Q Let me show you the verification on the  
13 back. Is that your signature on the back?

14 A Yes, that appears to be my signature.

15 Q Does Ms. Martin still work for this firm?

16 MR. MIKULA: No, she does not.

17 BY MR. ROUSSEL:

18 Q I would like to attach this as Exhibit  
19 Number 10 to the deposition.

20 Let me ask you, on interrogatory number 15,  
21 you state that Rockwell has supplied  
22 asbestos-containing brake linings -- has supplied --

1 from the following facilities.

2 Are these Rockwell facilities that are  
3 identified down here, or are these other independent  
4 facilities, starting at the bottom of the page, right  
5 below the yellow? This is Exhibit 10, interrogatory  
6 15.

7 A These are Rockwell, Rockwell sold these.

8 Q Does Rockwell ever get, say, a pallet of  
9 brake linings from a supplier in a shrink-wrapped  
10 carton that is not labeled with the supplier's name,  
11 and actually just put their name on the package or on  
12 the shrink-wrap and send it to a distributor?

13 A Repeat the question again.

14 Q Yes. Does Rockwell ever receive an order,  
15 say I want a pallet, or I want a carton of brake  
16 linings, whatever they come in, comes in a banded  
17 pallet or some kind of plastic container, whatever it  
18 is, without the manufacturer's name on it, and  
19 Rockwell actually takes the box or the shrink-wrap, I  
20 will put another shrink-wrap around it, and put their  
21 name on it and ship it to a wholesale distributor?

22 A To the extent that we might receive brake

1 assemblies from one of our manufacturing plants, all  
2 right, it is possible that that would be out of any  
3 other manufacturer's box, and we would take those  
4 assemblies and shrink-wrap them and ship them.

5           The lining material typically has an FMSI  
6 number, which identifies particularly the  
7 manufacturer of that product.

8           To the extent you may be shipping, say,  
9 bulk brake items such as a pallet load of linings,  
10 again, those would be shrink-wrapped. They would, as  
11 I recall, be out of the box, but, again, those  
12 linings would have an edge code on it typically  
13 identifying the manufacturer.

14           Q     When you say shrink-wrapped, are you saying  
15 that we are going to take the individual item off the  
16 pallet and wrap those separately?

17           A     No. No, I am referring to placing the  
18 items, be it brake assemblies or the linings, on a  
19 skid, perhaps putting plywood or cardboard between  
20 them, stacking them up to a pallet size of  
21 4-by-4-by-4, for instance, banding that, and then  
22 shrink-wrapping the palletized load.

1 Q Has Rockwell ever received such a pallet,  
2 just like you described, from a supplier and only  
3 changed the name or just labeled it as Rockwell, and  
4 then sent it on to a distributor, without doing  
5 anything else?

6 A I don't know, as I sit here.

7 MR. CALI: Off the record a second.

8 (Discussion off the record.)

9 EXAMINATION

10 BY MR. CALI:

11 Q Mr. Ketcham, Mike Cali.

12 I think we have identified here that  
13 Rockwell has purchased asbestos-containing brake  
14 products or brake materials from Abex, Motion  
15 Control, and I believe we also said Bendix or Allied;  
16 is that correct?

17 A Whatever was testified to.

18 Q Do you have any personal knowledge of any  
19 other supplier of those types of products to  
20 Rockwell?

21 A One that comes to mind was Ray Asbestos  
22 Manhattan. Other names of other companies I do not

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1 recall as I sit here.

2 Q There were others though, right?

3 A Yes, I believe so, yes.

4 Q If we searched, we could find out the  
5 identities of those suppliers?

6 A Over the relevant time period, conceivably,  
7 yes.

8 Q Can you give me an estimation of how many  
9 others there are. Would you say there are a handful,  
10 two or three others, or 20 others?

11 A I couldn't say, as I sit here today.

12 Q Order of magnitude, you can't give me an  
13 idea; less than 10?

14 A I can't say less than 10 or more than 10.  
15 It was certainly not hundreds.

16 Q Back again in number 3, I might have asked  
17 you this question in a different way, I apologize,  
18 but do you know, as far as the parts that are in  
19 Exhibit 3, which I believe the parts supplied by  
20 Rockwell Top -- either Fleet or an entity with a  
21 similar sounding name -- are any of those products  
22 that contain materials from Rockwell from Bendix

1 Abex, Motion Control or Allied?

2 A As I sit here today, from my memory?

3 Q Yes.

4 A No, I do not.

5 Q When Rockwell purchases a part, such as  
6 asbestos-containing materials, from Abex, Motion  
7 Control and Bendix, are those parts supplied to a  
8 specification that Rockwell submits to the suppliers?

9 A I do not believe so.

10 Q So Rockwell doesn't specify content. But  
11 does Rockwell specify, we need a brake product for a  
12 particular application, let's say?

13 A That is how the process would start.

14 Q Are you aware of any intercourse between  
15 Rockwell and any of the three suppliers we have  
16 talked about, Abex, Motion Control or Bendix,  
17 regarding whether or not to include asbestos in the  
18 brake materials?

19 A To the best of my knowledge, the decisions  
20 to decide or decisions not to include asbestos in a  
21 particular brake product is the design prerogative of  
22 the lining manufacturer.

1 Q Are there any applications where asbestos  
2 is not feasible, where there is no feasible  
3 substitute for asbestos; in other words, does  
4 Rockwell sell a product in which only asbestos is  
5 suitable and present?

6 A No.

7 MR. CALI: I have no more questions,  
8 thanks.

9 EXAMINATION

10 BY MR. ROUSSEL:

11 Q Mr. Ketcham, --

12 MR. MIKULA: Excuse me, Perry, before you  
13 start the next question, let me check with my  
14 secretary to see if there's any need to extend the  
15 conference call at one point. I know at one point--  
16 she said it was up to a certain point. I just need  
17 to clarify.

18 (Discussion off the record.)

19 BY MR. ROUSSEL:

20 Q Mr. Ketcham, let me show you what I am  
21 going to mark as Ketcham Exhibit 11. It's a Rockwell  
22 grievance which is attached to a number of letters

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1 sent to -- one is to Molded Materials Division, which  
2 I think is Carlisle, one is Bendix Corporation.

3 MR. CALI: Object to the form.

4 BY MR. ROUSSEL:

5 Q One is to Abex.

6 MR. CALI: Withdraw that, then.

7 BY MR. ROUSSEL:

8 Q Can you identify these particular letters  
9 as being Rockwell documents? I am not too concerned  
10 about the grievance itself.

11 A To the extent that the signature block  
12 shows a statement of Rockwell Standard Division,  
13 North American Rockwell, they appear to be.

14 Q What are the complaints on those three  
15 letters to those suppliers?

16 A Without comparing word-for-word, they  
17 appear to be identical other than who they are  
18 addressed to. It references a grievance from  
19 apparently a local union and asks them to correct the  
20 situation described in the grievance.

21 Q I think the grievance describes asbestos  
22 dust that is coming into the Rockwell facility from

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1 the Troy manufacturers that are identified in each of  
2 the letters; is that correct?

3 A The brief answer itself, as regards the  
4 statement of dispute or any title box above that,  
5 does not specifically identify any particular vendor;  
6 however, it does discuss asbestos disc in shipments.

7 MR. CALI: I said you were rid of me,  
8 but --

9 EXAMINATION

10 BY MR. CALI:

11 Q Mr. Ketcham, this particular grievance form  
12 references asbestos dust from the rivet and bolt  
13 holes not being removed from the product. I assume  
14 they mean -- do you agree with me what this means is  
15 that the complaint is that when the materials are  
16 received from the vendors, such as Motion Control or  
17 Abex or Allied, that at that time the product still  
18 contains asbestos dust in the rivet and bolt holes;  
19 is that what they are complaining about?

20 A That is how I would interpret it.

21 Q Now, at this time, 1973, I think you  
22 indicated brake linings were still being grinded, or

1 ground, by Rockwell to a certain extent; is that  
2 correct?

3 A It is my belief, yes.

4 Q Without getting into what controls Rockwell  
5 had in place, because I don't think that's relevant  
6 either, would you agree that the grinding of brake  
7 materials would produce a certain amount of dust?

8 A Yes.

9 Q As an attorney, you are aware that the  
10 Occupational Safety and Health Administration had  
11 regulations in effect in 1973 which was incumbent  
12 upon employers to control dust for their own  
13 employees, asbestos dust?

14 A I am not aware of a particular date --

15 Q Would you --

16 A -- or otherwise.

17 Q Would you disagree with me, I think, that  
18 an emergency standard was issued in 1971 and became  
19 effective in 1972?

20 MR. MIKULA: If you have any knowledge  
21 about that.

22 THE WITNESS: (The witness nodded.)

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1 MR. CALI: That's fine, I don't have any  
2 other questions.

3 MR. ROUSSEL: I am going to show you what  
4 we will mark as Exhibit Number 12.

5 (Ketcham Exhibit 12 identified.)

6 EXAMINATION

7 BY MR. ROUSSEL:

8 Q The subject of the document is Asbestos  
9 Linings in Department Number 30, by OSHA Complaint  
10 Department. The relevant part of the document that I  
11 want to discuss is the one dated at the top with  
12 October 11, 1971. The document says that, paragraph  
13 1, 2, 3, 4, "Mr. Heard was advised that the company  
14 was aware of the potential health hazard that could  
15 be caused by asbestos. You would agree that the  
16 company knew, in 1971, that asbestos causes certain  
17 types of health hazard to individuals.

18 A Can you show me the document.

19 Q Again -- again, not a complete reading, but  
20 a brief reading of the document, there is a statement  
21 here that says, "The company was aware of the  
22 potential health hazard."

1           A     I did not see anything in the document,  
2 however, that identified the company that they were  
3 referring to.

4                     (Ketcham Exhibit 12 identified.)

5           BY MR. ROUSSEL:

6           Q     I am going to show you Exhibit Number 13,  
7 dated 1974. The document seems to indicate that  
8 Rockwell is continuing to receive from its vendors  
9 lining material containing excessive dust left in the  
10 linings. Could you take a look at that document.

11          A     Again, the question.

12          Q     At that time, I think it's 1983 -- what is  
13 the date, 1974, --

14          A     1974.

15          Q     -- Rockwell is continuing to receive from  
16 vendors, whoever they might be, linings that continue  
17 to have excessive asbestos dust, which is a concern  
18 to Rockwell.

19          A     Yes, the letter states that there was  
20 excessive asbestos dust and that measures needed to  
21 be taken.

22                     MR. ROUSSEL: I am going to ask you about a

1 document that I am going to mark as Exhibit Number  
2 14.

3 (Ketcham Exhibit 14 identified.)

4 BY MR. ROUSSEL:

5 Q On the third page identified by RD 530, it  
6 talks about brake linings in asbestos and different  
7 operations. I would like to ask you about a certain  
8 column. Maybe we can go through each particular  
9 operation.

10 It talks about rivet and grinding, I guess,  
11 it says "grind." Is that rivet and grinding of brake  
12 linings it is referring to?

13 A Can I read the document?

14 Q Sure.

15 A Would you ask the question again.

16 Q The question is, this 140,000 total per  
17 month, are we talking about the number of linings  
18 that are actually drilled and ground each month, I  
19 guess, at this particular facility?

20 A I don't know if that's referring to linings  
21 or lined shoes, one or the other.

22 Q What is the difference? It talks about

1 brake linings here.

2 A Yes, I understand.

3 A lined shoe may consist of one or two, at  
4 least that I am familiar with, brake linings.  
5 Sometimes the brake lining may, depending upon the  
6 size of the area that you are encompassing on the  
7 shoe, sometimes a lining would cover the whole shoe  
8 surface, or sometimes you would need two linings on a  
9 shoe.

10 Q I notice that it talks about, directly  
11 under it, I guess the assembly of 80,000 per month,  
12 then it says A-R-E ground. Do you know what that  
13 stands for, "are ground"?

14 A It would appear on its face to say that  
15 80,000 per month are ground.

16 Q Directly under it, it identifies the  
17 80,000, if I am not mistaken, nonasbestos linings, or  
18 that product that you had identified?

19 A As I would interpret it, either linings or  
20 shoes.

21 Q The date of that particular document is  
22 what?

1           A       There are two dates listed on the document,  
2 one of which is August 1983 and a second date is  
3 January 1986.

4           Q       Thank you.

5                   I am going to show you a survey, Industrial  
6 Hygiene Survey done of the Ashtabula, --

7           A       Ashtabula.

8           Q       -- Ohio plant dated October 15, 1970. I  
9 just want to bring your attention, when you look at  
10 RD 579, when you talk about the knowledge of  
11 asbestos, showing that the industry had knowledge of  
12 asbestos as early as September 3, 1970, I have a  
13 little yellow marker.

14          A       And your question?

15          Q       At that particular time, did Rockwell, does  
16 that document indicate that Rockwell had knowledge of  
17 the hazards associated with asbestos?

18          A       Again, the document speaks for itself. It  
19 appears on its face to be a letter and report  
20 prepared by George D. Clayton & Associates. And the  
21 page that is indicated on here does state, "Asbestos  
22 inhalation is a well-known potential and industrial

1 health hazard which can lead to characteristic lung  
2 fibrosis and turn to asbestosis."

3 Q Thank you.

4 MR. ROUSSEL: That is Exhibit Number 15.

5 (Ketcham Exhibit 15 identified.)

6 BY MR. ROUSSEL:

7 Q I want you to look at this particular  
8 document. Can you tell me what this document is?

9 A It appears to be a piece of sales  
10 literature published by Rockwell.

11 MR. ROUSSEL: I am going to mark that as  
12 Exhibit Number 16.

13 (Ketcham Exhibit 16 identified.)

14 BY MR. ROUSSEL:

15 Q Does this particular document go to  
16 customers of Rockwell, those that would be buying  
17 wholesale distributors, those that would be buying  
18 parts from Rockwell? Who gets this document?

19 A This particular product here, the  
20 Holdmaster mechanical brake, appears on the  
21 description of the second page of the document, to be  
22 directed to potential customers of front-end loaders,

1 graders, medium trucks, off-highway trailers, road  
2 rollers, rough terrain cranes, and various stationary  
3 machinery.

4 This could either be distributed to our  
5 internal mailings, internal distribution, requested  
6 by customers typically, or it could be provided to  
7 customers that we know are in this particular  
8 market.

9 Q Does Rockwell send this -- let me start  
10 with the customer mailing list. Who would be on a  
11 customer mailing list? Would that be only at the  
12 wholesale distribution or OEM level, or do you go  
13 further down to the user level?

14 A There are mailing lists that the company  
15 uses. Some of them may be directed to OEMs, some of  
16 them may be directed to WDs, some of them may be  
17 directed to fleets.

18 Q Does Rockwell send out any brochures  
19 similar to this, that is, directed to the end use,  
20 that is actually doing the use on the part, the small  
21 body shop that might be doing brakes, or small Midas  
22 shop, or any little independent operation that might

1 be doing work on truck parts or automobile brakes, or  
2 even heavy-duty brakes?

3 A I doubt that they would go to automobile  
4 brakes, because the brakes that we sell are for the  
5 heavier-medium truck market. As you brought up, they  
6 would typically go to fleet. Fleets would be an end  
7 user; dealership, OEM dealership would be an end  
8 user; it would be directed to them.

9 To the extent that an independent dealer  
10 either requested the information or asked to be put  
11 on a mailing list, it's conceivable that they would  
12 also receive the information.

13 Q Does Rockwell have a policy of notifying  
14 its wholesale distributors to distribute these types  
15 of documents to other users that might be purchasing  
16 from the wholesale distributors?

17 A To the extent that we provide either sales  
18 literature or other literature to the WDs, which they  
19 may make available at their counter, in the counter  
20 display, for instance, it is possible that the users  
21 or even the counter trade would pick up a brochure at  
22 that point in time.

1 (Ketcham Exhibit 17 identified.)

2 BY MR. ROUSSEL:

3 Q I will show you what's marked as Exhibit  
4 17. Could you tell me who is the intended recipient  
5 of this particular type document from Rockwell?

6 A Documents such as this refer to our service  
7 parts, and this one in particular refers to break  
8 components, document of this type might be sent to  
9 either our WDs and/or to dealers, and may be made  
10 available in quantities for them to post at their  
11 counter, for counter trade to see.

12 Q Does Rockwell -- or have they distinguished  
13 in the manufacturing between certain size vehicles,  
14 in the type of brake linings that they use in the  
15 vehicles? And I know that's unclear.

16 In other words, did Rockwell have  
17 heavy-duty trucks or medium-duty trucks where they  
18 would use asbestos linings in only heavy-duty, and  
19 not in medium-duty or light-duty vehicles, or did  
20 they use asbestos in all of the vehicles at one  
21 time? And when I say one time, I am talking about  
22 1970 on up until, I guess, when we are starting to

1 phase out the asbestos parts, up through today.

2 That was a long question, I know.

3 A To the best of my knowledge, if you go back  
4 to 1970, all of the brake linings were manufactured  
5 with asbestos materials. Nonasbestos materials, I  
6 believe, came into being during this time that we  
7 talked about, from 1970 through 1992 or 1993  
8 gradually replaced the use of asbestos materials.

9 Q Was Rockwell -- did they pinpoint which  
10 particular line of products they would start using  
11 nonasbestos in first, like the light-duty line,  
12 heavy-duty line, we are going to take this on first;  
13 do you know of any designation by Rockwell to attack  
14 one particular line for use of a nonasbestos parts  
15 over another line?

16 A Not based upon any decision or direction  
17 that Rockwell gave in the transition from asbestos to  
18 nonasbestos. It required the development of  
19 nonasbestos linings, in some instances, in order to  
20 replace the asbestos linings, based upon vehicular  
21 application, size, weight, so forth; there are  
22 different lining characteristics that need to be in

1 that lining material and certain characteristics.  
2 And for certain vehicle applications, I know that it  
3 took the lining manufacturers longer to develop  
4 suitable nonasbestos replacements.

5 Q Do you know if any of the components used  
6 in nonasbestos parts were not available in the early  
7 1970s?

8 A Could you define "components."

9 Q Whatever consists, or whatever compounds  
10 are used in the makeup of the asbestos lining.

11 A The lining material itself?

12 Q The lining material itself.

13 A Okay.

14 Q Do you know if there is any new  
15 development, since the early 1970s, they found some  
16 new compound to place into these linings to get away  
17 from the asbestos product?

18 A I don't know, no.

19 (Ketcham Exhibit 18 identified.)

20 BY MR. ROUSSEL:

21 Q I am going to show you what's marked as  
22 Exhibit Number 18. Could you tell me what customer

1 this particular product was directed to, and again,  
2 as with the similar brochures, what was the intent of  
3 the document?

4 A Again, the document is a piece of sales  
5 literature for Stopmaster series brakes. A series of  
6 brakes described in the brochure are primarily all  
7 for use in off highway equipment, and it would be  
8 directed at the fleet, or OEM, and the construction  
9 fleet, probably, in most instances, that would be  
10 purchasing these products.

11 Q I am going to show you a document that I  
12 think is a Rockwell document. Maybe you can tell me  
13 by looking at the names of individuals on the bottom  
14 that discusses the placing of warnings on over  
15 packs. Can you tell me about Rockwell's policy as  
16 far as placing warnings on over packs, and how this  
17 particular procedure was changed by this document?

18 And what are over packs?

19 A Okay, again, your question.

20 MR. MIKULA: Could you repeat the question,  
21 one at a time.

22 BY MR. ROUSSEL:

1 Q What is an overpack?

2 A An overpack is a large box, or it could be  
3 a shrink-wrapped pallet, which would contain --  
4 smaller, could contain smaller boxes, is made to  
5 contain the smaller boxes or as such. That becomes  
6 your shipping container, your 4-by-4-by-4 load.

7 Q This talks about placing warnings on  
8 certain over packs and not placing warnings on  
9 certain other over packs. What policy did Rockwell  
10 have in-place prior to this particular procedure  
11 being implemented?

12 A With respect to shipments from our service  
13 facilities, I know that individual boxes were labeled  
14 with an asbestos warning on them. I know that at  
15 this point in time, individual brake shoes that  
16 contained asbestos linings were available.

17 Q How was that done?

18 A By taking an adhesive label and placing it  
19 on the shoe, as far as shoes go. The box labels were  
20 imprinted with an asbestos warning.

21 As far as what was done with over packs  
22 prior to this directive, I am not sure.

1 Q It talks about, in this second -- in this  
2 document about mix loads on less than a full-packed  
3 load containing asbestos, the large pack-and-peel  
4 warning asbestos might be used. Can you explain to  
5 me why that is not happening and why?

6 A Again, I don't know if I would want to  
7 interpret more than what is on the face of the  
8 document.

9 MR. ROUSSEL: That will be Exhibit Number  
10 19.

11 (Ketcham Exhibit 19 identified.)

12 BY MR. ROUSSEL:

13 Q I am going to show you a letter which was  
14 supplied to me by Rockwell, but I don't think it's a  
15 Rockwell letter. Can you look at this and tell me  
16 whether or not you recognize the individuals listed  
17 on here as Rockwell employees.

18 A The individuals listed here?

19 Q Yes.

20 A No.

21 Q And here?

22 A No. I don't recognize them as Rockwell

1 employees.

2 Q Do you recognize them as Johns Manville  
3 employees?

4 A No.

5 MR. ROUSSEL: I am going to list this as  
6 Exhibit Number 20.

7 (Ketcham Exhibits 20 and 21 identified.)

8 BY MR. ROUSSEL:

9 Q I am going to show you what has been marked  
10 as Exhibit Number 21.

11 Could you tell me what this document is and  
12 who is meant to receive this particular document?

13 A It is a Rockwell brake maintenance manual  
14 called "Field Maintenance Manual Number 4." It  
15 provides instructions for the service and repair of  
16 Rockwell brakes that were being manufactured at the  
17 time for the various model numbers that are included  
18 in the maintenance manual.

19 Q Who's the intended recipient of this  
20 particular document?

21 A The ultimate intended recipient would be  
22 the maintenance technician.

1 Q Do you know who Rockwell sent these  
2 particular brochures to?

3 A Again, distribution could be made through  
4 the OEMs, to OEMs, to people on our mailing lists, to  
5 people that requested maintenance information and  
6 such.

7 (Ketcham Exhibit 22 identified.)

8 BY MR. ROUSSEL:

9 Q I am going to show you what's been marked  
10 as Exhibit Number 22. I am going to ask you to  
11 identify this particular document.

12 A This is a Rockwell maintenance manual,  
13 also. This is an "Advanced Field Maintenance Manual"  
14 for Cam-Master Q brakes, Q series brakes.

15 Q What types of vehicles are Q series brakes  
16 used on?

17 A Primarily on-highway vehicles.

18 Q Again, the intended recipient of that  
19 document is the same as document manual number 4  
20 identified in Exhibit Number 21?

21 A That's correct.

22 (Ketcham Exhibit 23 identified.)

1 BY MR. ROUSSEL:

2 Q Let me show you what is being identified as  
3 Exhibit 23. I am looking at the third paragraph  
4 here. What concerns did -- what would concern  
5 Rockwell about assembly linings being damaged in  
6 shipment as referred to in this particular document?

7 A Again, your question?

8 Q What was the concern here in the exhibit  
9 when the linings would be damaged, was there a  
10 concern-by Rockwell that the fibers from the damaged-  
11 linings -- well, that damaged linings would actually  
12 create asbestos fibers that were dangerous, I guess,  
13 to the health of individuals?

14 A If you are referring to the damaged in the  
15 second line here, --

16 Q Yes.

17 A -- that, as I read it, is the return of  
18 damaged linings to the lining manufacturer. It  
19 appears at this point in time that we were placing  
20 those damaged linings in tubs and shipping that back  
21 to the lining manufacturers, is how I would interpret  
22 it.

1 Q It talks about, in my opinion, that these  
2 should be totally enclosed and labeled because of the  
3 possibility of generating asbestos fibers during  
4 shipment.

5 There's no grinding going on. What  
6 asbestos fibers could be generated during the  
7 shipment of brake linings back to the manufacturer?

8 A It would be my belief that it says in the  
9 statement here, in the first sentence, that the  
10 linings were loose in tubs; therefore, you would have  
11 lining rubbing against lining. I guess, somebody  
12 felt potentially --

13 MR. MIKULA: Don't guess.

14 BY MR. ROUSSEL:

15 Q When you shipped linings to a wholesale  
16 distributor, were they ever loose on pallets, as  
17 described by this document?

18 A Not in my belief.

19 Q Do you know one way or another? You say  
20 not in your belief?

21 A I don't believe so.

22 Q I am going to show you a document which is

1 not a Rockwell document, but it was in the documents  
2 produced by Rockwell, describing a layout for a  
3 asbestos warning. Are you familiar with, I guess,  
4 Rockwell's attempts to design a sticker to place on  
5 its component parts as identified in this particular  
6 set of documents?

7 A Your question again, please.

8 Q Are you familiar with what Rockville was  
9 doing at this particular time with that particular  
10 label design?

11 A No.

12 Q I am going to show you another exhibit.  
13 Can you tell from this particular exhibit -- and I am  
14 going to show you what Rockwell might have been doing  
15 to design a warning label for asbestos products.

16 A Again, your question, please.

17 Q What actions was Rockwell taking at this  
18 particular time to design a warning label for, I  
19 guess, individual asbestos products, from what I can  
20 tell?

21 A This particular label?

22 Q Yes.

1 A I do not know.

2 Q Do you recognize that set of documents as  
3 Rockwell documents?

4 A The first document, RD 00187, contains the  
5 name of some individuals I know as Rockwell employees  
6 at that particular point in time. The balance of the  
7 documents appear to be a letter to Rockwell from  
8 Caterpillar Tractor Company dated October 3, 1995,  
9 apparently requesting, as I would interpret it, that  
10 we put their label on.

11 MR. ROUSSEL: I am going to mark that as  
12 Exhibit Number 24.

13 (Ketcham Exhibits 24 and 25 identified.)

14 BY MR. ROUSSEL:

15 Q I am going to show you what is marked as  
16 Exhibit Number 25. Could you tell me who is the  
17 intended recipient of this particular document?

18 A Intended recipient would be employers,  
19 maintenance technicians, who had dealt with the  
20 maintenance and servicing of Rockwell brakes that  
21 contained asbestos linings.

22 Q Do you know who Rockwell sent this

1 particular document to, or did they send it to the  
2 same individuals as you discussed, with the other  
3 manuals identified previously as Exhibit Number 21  
4 and 22, the maintenance manual, the two maintenance  
5 manuals, or the brochures listed as Exhibits Number  
6 16, 17 and 18?

7 A Without going back and referencing the  
8 exhibits, what were the questions, or what was the  
9 question?

10 Q Yes. Do you know who, what was the process  
11 of getting this document to the WDs, or whomever it  
12 was intended to get to?

13 A Again, this could be sent to the WDs, OEM  
14 dealers, as part of a mailing; it could be  
15 distributed by our field force; it could be also  
16 included as a package insert in brake lining kits  
17 and, as such, possibly other modes of distribution.  
18 But those are the only ones that occur to me right  
19 now.

20 Q But you don't know offhand exactly what was  
21 done with this particular document?

22 A I just described what I thought was

1 probably the process of distribution on this

2 (Ketcham Exhibit 26 identified.)

3 BY MR. ROUSSEL:

4 Q I am going to show you another document  
5 that talks about asbestos label warning testing.

6 Could you look at this particular document  
7 and tell me whether or not Rockwell is in the process  
8 of attempting to develop a warning label for asbestos  
9 products?

10 A This appears to indicate testing and the  
11 results of that testing with respect to asbestos  
12 warning label that was attached or was intended to be  
13 attached directly to the brake shoes.

14 (Ketcham Exhibit 27 identified.)

15 BY MR. ROUSSEL:

16 Q I am going to show you what has been marked  
17 as Exhibit Number 27, which is, again, Field  
18 Maintenance Manual 4P for Heavy-Duty Brakes.

19 Is there any difference from the  
20 distribution process for this particular manual as  
21 opposed to Field Manual Number 4 Exhibit Number 21?

22 MR. MIKULA: Do you need to look at 24

1 again?

2 BY MR. ROUSSEL:

3 Q Sure,

4 A Possibly.

5 Q Can you tell me what that is?

6 A The field maintenance manual that you  
7 handed me, number 4P, for Stopmaster brakes, refer to  
8 heavy-duty and to 17 and 36-inch brakes. Those are  
9 brakes that are typically used on off-highway  
10 equipment, whereas the prior exhibit, 21, those  
11 brakes are primarily used on on-highway equipment;  
12 therefore, customers that you are trying to provide  
13 this information to might be slightly different.

14 Q I am going to show you two letters dated  
15 one of June 1, 1983, one of May 16, 1983, which I am  
16 going to mark as Exhibit 28. The letters seem to be  
17 referring to the receipt, again, of Abex Corporation  
18 brake linings with excessive asbestos dust in the  
19 boxes.

20 Can you take a look at that particular line  
21 of documents and tell me exactly what they are  
22 referring to.

1 (Ketcham Exhibit 28 identified.)

2 THE WITNESS: Again, your question,  
3 please.

4 BY MR. ROUSSEL:

5 Q Do these set of documents refer to the  
6 concern for excessive asbestos dust from the Abex  
7 supplier?

8 A Yes, that's what it appears to be on its  
9 face.

10 (Ketcham Exhibit 29 identified.)

11 BY MR. ROUSSEL:

12 Q I am going to mark this as Exhibit 29.  
13 Again, this particular document concerns Abex  
14 Corporation's product that's being supplied to you,  
15 and it seemed that there's a problem with that  
16 particular manufacturer's asbestos brake linings as  
17 far as the creation of dust.

18 Can you take a look at that particular  
19 document for me, please.

20 A Again, your question, please.

21 Q Whether or not there's a concern with the  
22 linings coming from Abex with the asbestos dust?

1           A       Right. The letter is addressed to Abex,  
2 and it does discuss asbestos dust.

3                   (Ketcham Exhibit 30 identified.)

4                   BY MR. ROUSSEL:

5           Q       I want to show you a document that's marked  
6 Exhibit Number 30 that talks about a respirator  
7 program. Could you tell me whether or not this is a  
8 Rockwell program, and why it's being established?

9           A       Based upon the heading on page RD 00186, it  
10 states, "Rockwell, Standard Division of Rockwell  
11 International," and it appears, as a whole, it was a  
12 program being established by Rockwell. I do not know  
13 the purpose of having the program.

14          Q       I am going to show you, I think these were  
15 different dates, letters from Rockwell to Carlisle,  
16 Carlisle Molded Materials Division, to Bendix  
17 Corporation, and to Abex Corporation, which appears  
18 to be a second letter dated 1975 complaining about  
19 the asbestos dust coming from those particular  
20 manufacturers to Rockwell.

21                   Could you take a look at those particular  
22 documents and see if those are actual Rockwell

1 documents.

2           A       They appear to be Rockwell documents based  
3 upon the heading, again, in the signature block,  
4 listing Rockwell Standard Division of Rockwell  
5 International.

6                       (Ketcham Exhibit 31 identified.)

7                       BY MR. ROUSELL:

8           Q       I am going to show you a document with an  
9 attached material safety data sheet. Can you  
10 describe to me what the material data sheet  
11 represents, which is the RD 02018.

12           A       I'm sorry, again, your question?

13           Q       What product is represented on that  
14 material safety data sheet?

15           A       Product name listed here is Cam-Master and  
16 Stopmaster truck brakes, front and rear.

17           Q       They list on there, I think, 45 percent  
18 asbestos content. Exactly what are they talking  
19 about as containing 45 percent asbestos?

20           A       I could not speculate on that beyond what's  
21 on the page.

22           Q       Is there anything besides the brake lining

1 and the brake shoe that contains asbestos in those  
2 particular products?

3 A Not to my knowledge, no.

4 MR. MIKULA: Objection, assumes that the  
5 brake shoe contains asbestos.

6 MR. ROUSSEL: The brake shoe and the brake  
7 lining are the same, from what you said earlier,  
8 right?

9 THE WITNESS: No, actually, the brake shoe  
10 was the metal, all right. The lining is the asbestos  
11 or nonasbestos lining material.

12 BY MR. ROUSSEL:

13 Q You wouldn't expect the composition of the  
14 metal to have asbestos in it, would you?

15 A No, I would not.

16 MR. ROUSSEL: Thank you. This will be  
17 Exhibit Number 32.

18 THE WITNESS: May we take a five-minute  
19 break?

20 MR. ROUSSEL: Sure.

21 (Ketcham Exhibits 32 and 33 identified.)

22 BY MR. ROUSSEL:

1           Q     Mr. Ketcham, I am going to show you what's  
2 going to be marked as Exhibit Number 33. Could you  
3 tell me what types of vehicle uses these types of  
4 brakes.

5           A     I don't know if you can specifically  
6 identify model to a particular type of vehicle,  
7 however, in general, this category of brakes would be  
8 used in small off-highway equipment, industrial  
9 trucks, and medium-duty trucks.

10       Q     Again, who is the intended recipient of  
11 that particular document, and how is it distributed  
12 to them?

13       A     Again, this is a maintenance manual, and it  
14 would be distributed and the intended recipients  
15 would be similar to as I testified to before, as far  
16 as distribution to various OEMs, dealers, WDs, and  
17 the intended recipient in the end is the maintenance  
18 technician who is performing the work and can be  
19 distributed by mailings or by our field  
20 representatives or, upon request, of those areas, so,  
21 people.

22                     This particular series is, as I described,

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1 the types of vehicles that I believe the brakes would  
2 be used and directed to those types of vehicle  
3 applications, or people that have those types of  
4 vehicle applications.

5 BY MR. ROUSSEL:

6 Q Again, what types of vehicles would use  
7 these particular types of brakes, in general?

8 A The type of vehicle that was used on this  
9 type of break would be primarily on-highway  
10 vehicles. The particular markets where this may be  
11 more prevalent than others would be fire equipment  
12 and refuse hauling.

13 MR. ROUSSEL: I am going to mark that as  
14 Exhibit Number 34.

15 Off the record for a second.

16 (Ketcham Exhibits 34 and 35 identified.)

17 BY MR. ROUSSEL:

18 Q I am going to show you what has been marked  
19 as Exhibit 35. Can you tell me what that particular  
20 exhibit is?

21 A It is a material safety data sheet for  
22 asbestos-containing brake linings prepared by

1 Rockwell International Corporation, to address  
2 products that were manufactured by other companies.  
3 It was prepared on the date on the final page.  
4 September 25, 1986.

5 Q Do you know whether or not there was ever a  
6 prior material safety data sheet prepared by Rockwell  
7 concerning asbestos products supplied to Rockwell by  
8 other manufacturers?

9 A Yes.

10 Q What is the answer?

11 A May I review the document?

12 Q Sure.

13 A To the best of my knowledge, this was the  
14 first asbestos-containing brake lining MSDS prepared  
15 by Rockwell for distribution, with the possible  
16 exception of Exhibit 32, which apparently was filled  
17 out by Rockwell. But we are in that letter returning  
18 their material safety data sheet, which was to  
19 Rockwell International or International Harvester of  
20 Canada.

21 Q Just for the record, the answer to  
22 discovery that I thought was for some other company,

1 that I read, was actually answers to our discovery,  
2 talking about the knowledge of Rockwell to the health  
3 hazards associated with asbestos.

4 I know you have answered some of these, and  
5 I am not going to reask you the same question.

6 MR. MIKULA: Mr. Roussel, are you reading  
7 from the notice of the corporate deposition?

8 MR. ROUSSEL: Yes.

9 BY MR. ROUSSEL:

10 Q May I ask you, do you know why Rockwell,  
11 although it had knowledge of the hazards associated  
12 with asbestos, waited until what seems to be the late  
13 '70s or 1980s before providing warnings about  
14 asbestos hazards to its customers?

15 A I know that in the '70s, in the late '70s,  
16 perhaps a little bit earlier in the '70s, we included  
17 warnings in some of our product literature and  
18 otherwise. That is the first time that I know we  
19 included those types of warnings, either on our  
20 packaging or on our literature. Beyond that, I do  
21 not know.

22 Q Who, you may not know, do you know anyone

1 in the organization, or who are in the organization,  
2 who might be able to testify concerning the decision  
3 not to warn customers about asbestos until the late  
4 '70s or early '80s, as you just described?

5 A No, I know of no such individual.

6 Q Are you familiar with any relabeling or any  
7 rebranding agreements with any of your suppliers of  
8 brake linings or brake pads?

9 A No.

10 Q I just wanted to make sure that -- let me  
11 see. I don't know if you signed this one or not.  
12 Strike that.

13 Let me ask you, in the interrogatories  
14 provided to us dated August 18, 1993, which were  
15 answered by Mr. Hugh Glenn and, therefore, also under  
16 the heading of Shea & Gardner underneath, do you know  
17 if you worked in preparing this particular set of  
18 answers, maybe I can show it to you, worked with the  
19 attorneys to prepare this set of answers. I have  
20 them all marked up to take a look at them.

21 A I would believe so, at least with respect  
22 to some of the other responses.

1 MR. ROUSSEL: I would like to attach that  
2 to this deposition. This will be Exhibit Number 36.

3 (Ketcham Exhibit 36 identified.)

4 BY MR. ROUSSEL;

5 Q Did you work any in the development of any  
6 of the warnings that are in any of the brochures, or  
7 any brochure that might be distributed by Rockwell to  
8 its customers?

9 A Yes.

10 Q When did you work in the development of  
11 those labels?

12 A My first involvement with that would have  
13 been approximately 1988, beginning then.

14 Q What did you do in your work to develop  
15 asbestos warning labels?

16 A I would work with counsel in reviewing the  
17 labels that are there and assuring that the most  
18 up-to-date revisions to the warnings and/or labels  
19 are included there on our product or in our manuals.

20 Q Did you have a warning specialist or  
21 warnings expert work with you in that area, or work  
22 with Rockwell and you in that area?

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1           A     Not a warnings expert, per se, beyond  
2 counsel.

3           Q     Do you know if Rockwell employed a warnings  
4 expert to review the work that you and whoever it is  
5 that you were working with, came up with the design,  
6 the language, whatnot?

7           A     Beyond the input of counsel, I am not  
8 certain. I don't know of any others.

9           Q     What was the ultimate or final warning that  
10 you selected to be placed on asbestos products? Was  
11 it anything that we went through today?

12               MR. MIKULA: I think we are asking the  
13 witness a pretty tough question.

14               THE WITNESS: I don't recall.

15               BY MR. ROUSSEL:

16           Q     Was there a finalized version, or were  
17 there several revisions that may have been placed on  
18 products over a period of time?

19           A     There have been revisions made to labels  
20 and literature over time.

21           Q     Do you remember the reasons why the  
22 revisions were made?

1 A As I sit here today, no.

2 Q Do you know if revisions were made because  
3 you felt or someone felt that the label or the  
4 warning was inadequate for the purpose of trying to  
5 be conveyed to the ultimate user?

6 A Again, I really don't know. I can't recall  
7 the reasons that we made the changes to the labels  
8 during the tenure that I had dealing with labels  
9 beginning in 1998, and literature also.

10 Q Are you still in the realm of warnings  
11 review; is that still part of your job function?

12 A I still review technical literature, yes.

13 Q When you started reviewing warnings in  
14 1988, did you feel that the warnings were inadequate?

15 A Not that I can recall.

16 Q Why did you make any changes to the warning  
17 if they were adequate?

18 A To update them and to ensure that they were  
19 in the various pieces of literature.

20 Q Did Rockwell give its salesmen and  
21 marketing personnel any type of specific training and  
22 education concerning the dangers associated with

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1 asbestos that they were to convey to their customers?

2 A Specific training dealing with asbestos, I  
3 am not aware of any. Obviously, our field people got  
4 and received the maintenance literature, saw that,  
5 reviewed that, and would be aware of those items that  
6 are in the literature.

7 They would have also received and  
8 themselves conducted training, perhaps, using some of  
9 our videotapes, which, I believe, also include  
10 information dealing with potential asbestos hazards.

11 Q What was the date of the first videotapes  
12 that came out that might have discussed asbestos  
13 hazards; do you know?

14 A No, I don't.

15 Q Was there any particular documents that  
16 Rockwell produced specifically for the salesmen or  
17 marketing personnel that discussed asbestos hazards  
18 and was directed at exactly those individuals?

19 A I don't know.

20 Q Besides this particular tort claim, what  
21 other tort claim are you aware of that had been filed  
22 against Rockwell for exposure to asbestos because of

1 dust from brake linings, brake shoes, brake pads?

2 A Open cases today, is that what you are  
3 referring to?

4 Q Any cases that you know of from 1970 up  
5 through today. I am sure that you have probably  
6 pointed one out earlier.

7 A I don't know the exact number.

8 Q Could you give me an estimate, more or less  
9 than?

10 A If I was to make an estimate of total  
11 claims against Rockwell for asbestos exposure on  
12 brake linings, I would say it would be in the  
13 neighborhood of 150 to 200. That does not include  
14 several hundred claims that were filed in the last  
15 couple of years; there was a mass file in the state  
16 of Ohio.

17 Q These have not included any workers' comp  
18 claims; is that correct?

19 A That is correct.

20 Q Of the claims that you just identified, are  
21 they basically the same type allegations as the  
22 present claim, where people are saying from the

1 grinding of asbestos linings, asbestos brake linings,  
2 they have been exposed to asbestos dust and have some  
3 lung condition from that exposure?

4 A I don't know.

5 Q Are you involved in all of those claims or  
6 any of those claims, as far as helping or assisting  
7 attorneys to defend those claims?

8 A Some of those claims, yes.

9 Q Who actually represents Rockwell on all of  
10 those claims?

11 A Our counsel.

12 Q Who is that?

13 A Our counsel.

14 Q Shea & Gardner or different counsel in the  
15 country?

16 A Shea & Gardner is our central counsel, and  
17 various local counsel are employed around the  
18 country.

19 Q Is Shea & Gardner involved in all of those  
20 cases?

21 A I don't know.

22 Q Have you given any prior depositions

1 concerning any of those cases that you just  
2 identified?

3 A No.

4 Q Do you know if Rockwell International  
5 Corporation has given any corporate depositions in  
6 any of those other claims that you identified?

7 A No.

8 MR. MIKULA: Bruce, are you saying, no, you  
9 don't know, or no?

10 THE WITNESS: No, to the best of my  
11 knowledge, no other person gave a corporate  
12 deposition.

13 MR. ROUSSEL: No further questions.

14 MR. MIKULA: Hello.

15 MS. ECHOLS: Yes.

16 MR. MIKULA: Do any of the counsel on  
17 telephone have any questions for Mr. Ketcham?

18 MR. PERRY: I have none. This is William  
19 Perry.

20 MR. ROUSSEL: Anyone else there?

21 MR. BROCKMAN: Yes, this is Bill Brockman,  
22 and I have no questions.

1 MR. MIKULA: Anyone else?

2 MS. ECHOLS: This is Julie Echols. I just  
3 have a couple.

4 EXAMINATION

5 BY MS. ECHOLS:

6 Q I represent Ford Motor Company in this  
7 matter.

8 A couple hours ago you mentioned Ford Motor  
9 Company in reference to Rockwell. Does Rockwell  
10 still sell parts to Ford Motor Company today, to the  
11 best of your knowledge?

12 A Any parts?

13 Q Yes.

14 A Yes, we do.

15 Q What parts would those be?

16 A Parts, automotive parts for your passenger  
17 cars, I believe.

18 Q What type of automotive parts for the  
19 passenger cars? Can you be more specific?

20 A I know that we supply suspension  
21 components; we may supply other components for  
22 passenger cars. I can't speak to that off the top of

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1 my head.

2 Q Did I understand you earlier in that you  
3 said you no longer supply parts containing asbestos  
4 to Ford Motor Company?

5 A That is correct.

6 Q Do you remember when you stopped supplying  
7 asbestos-containing parts to Ford Motor Company,  
8 Rockwell?

9 A Not specifically.

10 Q Do you need a time frame?

11 A Late 1980s or 1990s.

12 Q Do you know how long Rockwell supplied  
13 asbestos-containing products to Ford Motor Company?

14 A No, I do not.

15 Q About what point in time, do you know what  
16 point in time they started?

17 A I could not hazard a guess.

18 Q During the time that you supplied  
19 asbestos-containing products for Ford Motor Company,  
20 what other companies did you provide similar products  
21 to?

22 A OEMs?

1 Q Yes.

2 A Over the years, we have supplied  
3 asbestos-containing brake products to many of the  
4 major heavy vehicle manufacturers such, as Ford or GM  
5 or the other heavy vehicle manufacturers, as well as  
6 the specialty manufacturers in the marketplace.

7 Q Can you name any other specifically other  
8 than Ford and GM?

9 A How long a list would you like?

10 Q Just give me, during the time frame that  
11 you also sold to Ford, I just want to know who else  
12 you sold to during that time frame.

13 A Remember, I couldn't identify the time  
14 frame with specifics as far as the time frame that we  
15 sold to Ford.

16 Q Generally, do you know within the same time  
17 frame?

18 A Well, as I previously stated, we supplied  
19 our brake products to a number of the major and minor  
20 on-highway vehicle manufacturers that manufactured  
21 products similar to Ford. During every year or every  
22 decade, we are not necessarily the manufacturer of

1 choice as far as brake products for those companies.  
2 We did have competitors in there.

3 Being more specific than that, I don't  
4 think that I can be.

5 Q You can't tell me who else you supplied  
6 products to other than GM and Ford?

7 A I just explained the breadth of the market  
8 that we supplied to.

9 Q Can you just identify some of the other  
10 automotive manufacturers?

11 A Again, I don't know if and when during that  
12 period of time we may have supplied brake product to  
13 some of the other manufacturers, but, as I said, it  
14 was major as well as medium and minor players in the  
15 market.

16 You had Navistar, Volvo, Mack, Packard  
17 group consisting of Peterbilt and Kenworth.

18 Again, I don't know during what particular  
19 period of time we may have supplied product to them.

20 Q Fair enough. If you don't know, again,  
21 just reiterate at what period of time you supplied  
22 these products to Ford as well.

1           A     That is correct.

2           MS. ECHOLS:   That's all I have, thank you.

3           MR. MIKULA:   Let's take a short break.

4           MR. ROUSSEL:   This is it.

5           You have some questions?

6           MR. MIKULA:   Maybe.

7           (Discussion off the record.)

8           MR. MIKULA:   No questions.

9           MR. ROUSSEL:   That's the end of the

10   deposition.

11           (Whereupon, at 4:35 p.m., the deposition

12   was concluded.)

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1 I HEREBY CERTIFY that I have read this  
2 transcript of my deposition and that this transcript  
3 accurately states the testimony given by me, with the  
4 changes or corrections, if any, as noted.

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X

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11 Subscribed and sworn to before me this \_\_\_\_\_ day of  
12 \_\_\_\_\_, 19\_\_.

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X

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Notary Public

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19 My commission expires: \_\_\_\_\_.

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C O N T E N T S

|    |                  |             |
|----|------------------|-------------|
| 1  |                  |             |
| 2  |                  |             |
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| 5  | by Mr. Roussel   | 5           |
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| 21 | Exhibit 3 Parts sales chart    | 61         |

-- continued --

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copy of manual

22

-- continued --

E X H I B I T S (CONTINUED)

| DEPOSITION NUMBER                       | IDENTIFIED |
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| Exhibit 22 Copy of manual               | 120        |
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| and technical service                   |            |
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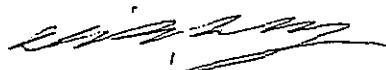
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CERTIFICATE OF NOTARY PUBLIC

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I, Edwin G. Crowley, a notary public in and for the District of Columbia, do hereby certify that the witness whose testimony appears herein appeared before me and was duly sworn by me.



Edwin G. Crowley  
Notary Public in and for  
the District of Columbia

My commission expires  
31 October 2000

Certificate of Court Reporter

I, Wendy S Caswell Court Reporter,

do hereby certify that the testimony contained herein is a true record of the testimony given by said witness, and I further certify that I am neither attorney nor counsel for, related to, or employed by any of the parties to the action in which this statement is taken; and, further, that I am not a relative or an employee of any attorney or counsel employed by the parties hereto, or financially interested in the action.



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50:12; 60:8; 96:21;  
110:17; 111:12; 112:14,  
16; 122:15  
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20:8

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widely [1]  
82:16  
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79:15  
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84:22; 104:22; 128:2;  
131:9, 18; 138:14;  
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14, 16, 21; 138:4  
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- Y -

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year [4]  
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18:12, 17; 41:22; 46:12;  
141:15; 146:2  
yellow [2]  
96:5; 109:13  
York [10]  
6:9, 12; 8:11; 21:1; 27:5;  
32:1, 4, 7; 39:22; 40:1

## CIVIL DISTRICT COURT FOR THE PARISH OF ORLEANS

## STATE OF LOUISIANA

NUMBER: 93-9533

DIVISION "K"

SECTION "14"

GEORGE DOUGLAS AND BONNIE MORALES DOUGLAS

VERSUS

ALLIED-SIGNAL, INC., ET AL

FILED: \_\_\_\_\_

DEPUTY CLERK

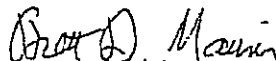
NOTICE OF DEPOSITION

TO ALL COUNSEL OF RECORD:

PLEASE TAKE NOTICE that the undersigned counsel for plaintiff will take the deposition of Bruce E. Ketcham in accordance with Louisiana Code Civil Procedure Article 1442, to testify on concerning the matters listed with particularity hereinbelow. This deposition shall be taken for all purposes permitted under the Louisiana Code of Civil Procedure on the 22nd day of January, 1999, at 11:00 A.M. (EST) and continuing thereafter day to day until complete, at the offices of Shea & Gardner, 1800 Massachusetts Avenue, N.W., Washington, D.C. 20036, before a duly qualified court reporter or other person authorized by law to administer oaths, at which time and place you are hereby notified to appear and take part as you deem fit and proper.

Respectfully Submitted,

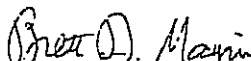
ROUSSEL AND ROUSSEL



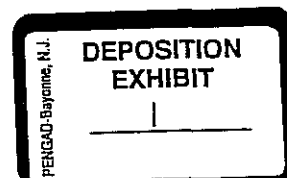
GEROLYN P. ROUSSEL #1134  
PERRY J. ROUSSEL #20351  
BRETT D. MAURIN #19696  
1710 CANNES DRIVE  
LAPLACE, LOUISIANA 70068  
TELEPHONE: (504) 651-6591  
ATTORNEYS FOR PLAINTIFFS

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing has been served upon counsel for all parties by FAX on this 21st day of January, 1999.



BRETT D. MAURIN



BIENVENU, FOSTER, RYAN & O'BANNON

ATTORNEYS AND COUNSELORS AT LAW

ALBION BANK BUILDING

200 CARondelet STREET

NEW ORLEANS, LOUISIANA 70130-7984

(504) 581-2146

TELECOPIER (504) 522-7859

HUGH M. GLENN, JR.

August 20, 1993

FAX - 1-651-6592

Ms. Gerolyn P. Roussel  
Roussel & Roussel  
1714 Cannes Drive  
Laplace, LA 70068

re: George and Bonnie Douglas  
v. Allied-Signal, Inc., et al  
CDC No. 93-9533 "K"  
Our File: 18,827

Dear Ms. Roussel:

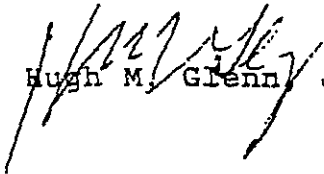
Pursuant to our telephone conference on August 19, 1993, enclosed please find a compilation of sales from Rockwell to Fleet Parts and Equipment in New Orleans and Heavy Duty Parts and Equipment in Harahan, Louisiana for the years 1978-1992 in response to your Notice of Deposition to Rockwell set for August 24, 1993.

As we advised, we do not know if these are the same entities referred to in your notice and interrogatories as Fleet Heavy Duty Parts in Harahan, Louisiana and Heavy Duty Truck Parts in Harahan, Louisiana.

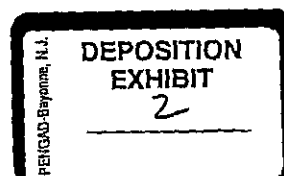
You advised you would review these along with our answers to interrogatories and advise us what documents you would want to review.

If you need further information please call either the undersigned or Richard Nagareda at (202)828-2000.

Cordially,

  
Hugh M. Glenn, Jr.

HMGJr:dmj  
encl.



|                               | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 198 |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|-----|
| FLEET PARTS                   |      |      |      |      |      |      |      |      |      |      |      |     |
| Brake Shoes                   | 4    | 4    | 1    |      |      | 1    |      |      |      |      |      |     |
| HEAVY DUTY                    |      |      |      |      |      |      |      |      |      |      |      |     |
| Brake Shoes                   |      |      |      |      |      |      |      |      |      | 2    | 1    | 4   |
| Air Disc Brake<br>Lining KIts |      |      |      |      |      | 16   | 16   | 45   | 20   | 278  | 758  |     |

Complied from data from Product Support Systems  
OEM Sales System

| Part Number        | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fleet Parts</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A8 3722 122        |      |      | -1   |      |      |      |      |      |      |      |      |      |      |      |      |
| A3 3722 190        | 4    | 4    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A 3722 741         |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |
| <b>Heavy Duty</b>  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A2 3722 3          |      |      |      |      |      |      |      |      |      |      |      | 4    |      |      |      |
| A3 3722 564        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| KIT15405RM         |      |      |      |      |      |      | 4    | 5    |      | 2    | 1    |      |      |      |      |
| KIT15409RM         |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |
| KIT15603RM         |      |      |      |      |      | 16   |      |      |      |      |      |      |      |      |      |
| KIT15607RM         |      |      |      |      |      |      | 12   | 40   |      |      |      |      |      |      |      |
| KIT15611RM         |      |      |      |      |      |      |      |      | 18   | 24   | 56   |      |      |      |      |
| KIT15612RM         |      |      |      |      |      |      |      |      | 2    | 252  | 545  |      |      |      |      |
| KIT15614RM         |      |      |      |      |      |      |      |      |      |      | 157  |      |      |      |      |

MATERIAL SAFETY DATA SHEET  
FOR DISC BRAKE LININGS

NOTE: This Material Safety Data Sheet contains information on the semi-metallic, nonasbestos friction material.

The linings in Rockwell brakes are manufactured by companies other than Rockwell. Copies of material safety data sheets prepared by these companies are available from Rockwell upon request.

This material safety data sheet is not part of any contract or sale. No warranties of any kind, expressed or implied, are made as to the brake linings described herein.

---

SECTION I - NAME AND ADDRESS

---

MANUFACTURER: Rockwell International Corporation

ADDRESS: Automotive Operations  
2135 West Maple Road  
Farmington, CT 06030

FOR ADDITIONAL INFORMATION ON HEALTH HAZARDS CONTACT: Randall P. Petrasch  
TEL.: 313-435-1019

PRODUCT NAME: Brake Linings on Rockwell Disc Brakes.

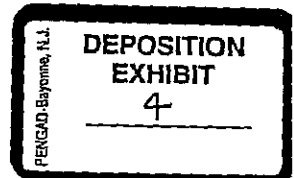
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SECTION II - HAZARDOUS COMPONENTS AND EXPOSURE LIMITS

| <u>Component</u>                | <u>OSHA PEL</u> <sup>1/</sup>                                                               | <u>ACGIH TLV</u> <sup>1/</sup>                                                  |
|---------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Inorganic Components            | 15 mg/m <sup>3</sup>                                                                        | 10 mg/m <sup>3</sup>                                                            |
| Carbonaceous Friction Enhancers | 15 mg/m <sup>3</sup>                                                                        | 15 mg/m <sup>3</sup>                                                            |
| Cured Phenolic Binder           | 5.0 mg/m <sup>3</sup>                                                                       | 5.0 mg/m <sup>3</sup>                                                           |
| Steel and Iron Particulate      | 5.0 mg/m <sup>3</sup> (respirable dust) <sub>307</sub><br>15 mg/m <sup>3</sup> (total dust) | 5.0 mg/m <sup>3</sup> (respirable dust) or<br>10 mg/m <sup>3</sup> (total dust) |

1/ All limits are 8-hour time-weighted averages.

---



SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS

|                                                            |     |                   |         |
|------------------------------------------------------------|-----|-------------------|---------|
| BOILING POINT:                                             | N/A | SPECIFIC GRAVITY: | 3.0-3.5 |
| VAPOR PRESSURE:                                            | N/A | PERCENT VOLATILE: | N/A     |
| VAPOR DENSITY:                                             | N/A | EVAPORATION RATE: | 0       |
| SOLUBILITY IN WATER:                                       | NO  | MELTING POINT:    | N/A     |
| APPEARANCE AND ODOR: DARK GREY SOLID, SLIGHT PHENOLIC ODOR |     |                   |         |

SECTION IV - FIRE, EXPLOSION, AND PHYSICAL HAZARD DATA

|                                       |                                                    |
|---------------------------------------|----------------------------------------------------|
| FIRE AND EXPLOSION HAZARDS:           | None                                               |
| FLASH POINT:                          | N/A                                                |
| EXTINGUISHING MEDIA:                  | CO <sub>2</sub> , water, foam, dry chemical.       |
| SPECIAL FIRE FIGHTING PROCEDURES:     | Wear self-contained breathing apparatus.           |
| REACTIVITY DATA:                      | Stable material.                                   |
| INCOMPATIBILITY (Materials to Avoid): | Avoid strong oxidizers due to organic content.     |
| HAZARDOUS DECOMPOSITION PRODUCTS:     | Incomplete combustion may release toxic materials. |
| HAZARDOUS POLYMERIZATION:             | Will not occur.                                    |
| CONDITIONS TO AVOID:                  | Avoid creating and breathing dust.                 |

SECTION V - HEALTH HAZARD DATA

|                          |            |
|--------------------------|------------|
| PRIMARY ROUTES OF ENTRY: | Inhalation |
| HEALTH HAZARDS:          |            |

ACUTE: May cause eye, skin, or upper respiratory system irritation. Metal dusts may be irritants of the eyes and upper respiratory system. Some persons may be sensitive to phenolic resins and develop dermatitis. Phenolic resins may cause skin eruptions similar to poison ivy.

CHRONIC: Exposures to dusts can lead to chronic lung diseases such as pneumoconiosis. There is little evidence of chronic industrial poisoning from iron or steel dusts.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE:

Symptoms of pneumoconiosis include shortness of breath, dry cough, fatigue on exercise, chest pains, chest tightness, and vague feelings of sickness. Such symptoms are not usually manifest until 15 to 20 years after first exposure. Other signs may be discovered by trained personnel using X-rays, pulmonary function tests, and other diagnostic tools during physical examination.

### SECTION VI - SPECIAL PRECAUTIONS

**ENGINEERING CONTROLS AND WORK PRACTICES:** All feasible engineering controls (for example, enclosure and ventilation) and work practices must be instituted to reduce worker exposures to dusts to or below the OSHA permissible exposure limits.

**RESPIRATORS:** If limits are exceeded, NIOSH or MSHA approved respirators must be used.

**OTHER MEASURES:** Avoid scraping or scratching brake linings or otherwise creating dust during assembly. Use available dust suppression or control measures, such as local exhaust ventilation, at all times. Compressed air should not be used for cleaning up dust from linings unless it is used as part of a ventilation system to capture the dust created. During brake maintenance, brake parts should be cleaned with a HEPA vacuum and then wiped with a damp rag to remove dust residue.

Protective gloves, long-sleeved shirts, and other protective measures are recommended for persons with sensitivity to phenolic resins.

Use of eye protection is good practice at all times and is necessary when dust may be propelled by drilling or machining.

### SECTION VII - EMERGENCY FIRST AID PROCEDURES

In case of eye irritation, gently rinse with water and get medical assistance.

MATERIAL SAFETY DATA SHEET  
FOR BONDING STRIP ON DISC BRAKES

The brake linings used on Rockwell disc brake units are semi-metallic, nonasbestos linings. These linings are attached to the brake shoe through the use of a backing strip (approximately 0.080 inches in width), wire mesh, and adhesive. The backing strip is employed to insure bond line integrity. The backing strip contains asbestos.

With proper use, the backing strip will not be exposed and cannot result in release of asbestos fibers. Proper use of the brake requires that the brake lining be replaced at appropriate intervals. To insure that the need to replace the linings is readily apparent, Rockwell provides a slide pin wear indicator on its brake units, and a simple check of this wear indicator will show whether lining replacement is necessary. If the brake is misused by failure to replace the linings when indicated, however, a possibility exists that the backing strip may become exposed. In the event of such misuse, workers performing brake repair should follow the precautions recommended in this sheet.

The bonding strips in Rockwell brakes are manufactured by companies other than Rockwell. Copies of material safety data sheets prepared by these companies are available from Rockwell upon request.

No warranties of any kind, expressed or implied, are made as to the brake components described herein.

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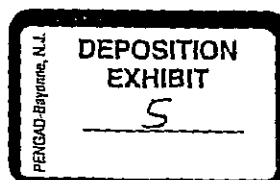
SECTION I - NAME AND ADDRESS

MANUFACTURER: Rockwell International Corporation

ADDRESS: Automotive Operations  
2135 West Maple Road  
Troy, Michigan 48064

FOR ADDITIONAL INFORMATION ON HEALTH HAZARDS CONTACT: Randall P. Petresh  
Tel.: 313-435-1019

PRODUCT NAME: Bonding Strip Containing Asbestos on Rockwell Disc  
Brakes.



RD 00037

SECTION II - HAZARDOUS COMPONENTS AND EXPOSURE LIMITS

| <u>COMPONENT</u>      | <u>OSHA PEL</u> <sup>1/</sup> | <u>ACGIH TLV</u> <sup>1/</sup> |
|-----------------------|-------------------------------|--------------------------------|
| Chrysotile Asbestos   | 0.2 fibers/cc <sup>2/</sup>   | 2 fibers/cc                    |
| Inorganic Components  | 15 mg/m <sup>3</sup>          | 10 mg/m <sup>3</sup>           |
| Cured Phenolic Binder | 5.0 mg/m <sup>3</sup>         | 5.0 mg/m <sup>3</sup>          |

1/ All limits are 8-hour time weighted averages.

2/ Scientific authorities disagree as to whether there is any absolutely safe level of exposure to asbestos.

SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS

|                                          |         |                |                                                        |
|------------------------------------------|---------|----------------|--------------------------------------------------------|
| BOILING POINT:                           | N/A     | MELTING POINT: | N/A                                                    |
| VAPOR PRESSURE:                          | N/A     | VAPOR DENSITY: | N/A                                                    |
| SPECIFIC GRAVITY:                        | 3.0-3.5 | PERCENT SOLID: | N/A                                                    |
| EVAPORATION RATE:<br>(Nylol Acetate = 1) | 0       | APPEARANCE:    | Solid, light tan<br>in color. Slight<br>phenolic odor. |
| SOLUBILITY IN WATER:                     | No.     |                |                                                        |

SECTION IV - FIRE, EXPLOSION, AND PHYSICAL HAZARD DATA

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| FIRE AND EXPLOSION HAZARDS:           | None.                                       |
| FLASH POINT:                          | N/A                                         |
| EXTINGUISHING MEDIA:                  | Water or Class A, B, or C<br>Extinguisher.  |
| SPECIAL FIRE FIGHTING PROCEDURES:     | Wear self-contained<br>breathing apparatus. |
| REACTIVITY DATA:                      | Stable material.                            |
| INCOMPATIBILITY (Materials to Avoid): | Avoid strong oxidizers.                     |

HAZARDOUS DECOMPOSITION PRODUCTS:

Incomplete combustion may create toxic fumes.

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS TO AVOID:

Avoid creating and breathing dust.

---

SECTION V - HEALTH HAZARD DATA

HAZARDOUS COMPONENTS:

See Section III above.

PRIMARY ROUTES OF ENTRY:

Inhalation, Ingestion.

HEALTH HAZARDS:

ACUTE: May cause eye, skin, and/or upper respiratory system irritation. Some persons may be sensitive to phenolic resins and develop dermatitis. Phenolic resins may cause skin eruptions similar to poison ivy.

CHRONIC:

(1) CANCER: The National Toxicology Program, International Agency for Research on Cancer, and OSHA have found that asbestos can cause cancer in humans. Studies of workers exposed to asbestos in the past have found increased deaths from lung cancer and mesothelioma. Some studies have also observed increases in other forms of cancer, such as cancer of the digestive tract, but other studies have not observed increases in those types of cancer. Smoking has been found to increase greatly the risk of lung cancer in asbestos workers.

(2) LUNG DISEASE: Exposure to asbestos can lead to asbestosis. In severe cases this disease can be fatal. Exposure may also lead to non disabling conditions known as pleural thickening, plaques, and calcification.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

Symptoms of asbestosis, pneumoconiosis, and lung cancer include shortness of breath, dry cough, fatigue on exercise, chest pains, chest tightness, clubbing of fingers, and vague feelings of sickness. Such symptoms do not usually manifest themselves until 15 to 20 years after first exposure. Other signs may be

discovered by trained medical personnel using X-rays, pulmonary function tests, and other diagnostic tools during physical examinations.

---

#### SECTION VI - OSHA REQUIREMENTS AND SPECIAL PRECAUTIONS

---

THE FOLLOWING PRECAUTIONS APPLY ONLY IF THE BRAKE UNIT IS MISUSED BY FAILURE TO REPLACE THE LINING WHEN INDICATED BY THE SLIDE PIN WEAR INDICATOR, THUS EXPOSING THE BONDING STRIP.

**ENGINEERING CONTROLS AND WORK PRACTICES:** All feasible engineering controls (for example, enclosure and ventilation) and work practices must be instituted to reduce worker exposures to asbestos dust and other dusts to or below the OSHA permissible exposure limits.

**RESPIRATORS:** Under conditions where asbestos dust levels exceed the permissible level, the OSHA asbestos standard requires that respirators approved by NIOSH and MSHA be used.

OSHA also requires that all respirators be properly maintained and that quantitative or qualitative fit tests be done every six months on all workers using negative pressure respirators.

**OTHER PROTECTIVE MEASURES:** If the OSHA limit for asbestos is exceeded, OSHA requires that the employer provide and require the use of appropriate protective clothing, rooms with separate lockers for work clothes, and appropriate lunchrooms. OSHA requires that workers exposed to asbestos be trained annually as to its potential hazards and the means of reducing those hazards. It also requires monitoring every six months of worker asbestos exposure if it may reasonably be expected to be at or above 0.1 f/cc.

OSHA prohibits using compressed air for cleaning up dust from asbestos unless it is used as part of a ventilation system to capture the dust created. OSHA requires, if feasible, the use of vacuums with HEPA filters or the use of wet cloths to clean up dust. OSHA prohibits the use of dry sweeping for cleanup if vacuuming or wet cleaning is feasible. OSHA requires that used cleaning cloths be put in sealed, impermeable bags or containers while still wet. (See Section VIII below for disposal methods.)

For further details of the OSHA asbestos standard, see 29 C.F.R. § 1910.

Protective gloves, long-sleeved shirts, and other protective clothing are recommended for persons with skin sensitive to phenolic resins.

Use of eye protection is good practice at all times and is necessary when dust may be propelled by drilling or machining.

**PRECAUTIONS TO BE TAKEN IN HANDLING:**

Use available dust suppression or control measures, such as local exhaust ventilation, at all times.

During brake maintenance, clean brake parts with a vacuum with a HEPA filter and then wipe with damp rags to remove asbestos-containing residue. Dispose of used rags while still wet in sealed, impermeable bags or other closed, impermeable containers. (See Section VII for disposal methods.)

---

**SECTION VII - SPILL OR LEAK PROCEDURES**  
**PROCEDURE:**

**STEPS TO BE TAKEN IN CASE DUST OR WASTE CONTAINING ASBESTOS OR OTHER HAZARDOUS MATERIALS IS RELEASED OR SPILLED:** Avoid creating airborne dust. Use a vacuum with a HEPA filter or remove by using water. Do not use brooms or compressed air on dry material. Wear personal protective equipment as prescribed above.

**WASTE DISPOSAL METHOD:** Waste containing asbestos or other hazardous materials should be collected and disposed of in sealed, impermeable bags or other closed, impermeable containers with proper labels in accordance with applicable federal, state, and local requirements. Note OSHA standard at 29 C.F.R. § 1910.1001, 51 Fed. Reg. 22733 for asbestos and EPA requirements at 40 C.F.R. §§ 61.140-.156 for asbestos and at 40 C.F.R. §§ 260-267 for hazardous wastes.

---

**SECTION VIII - EMERGENCY AND FIRST AID PROCEDURES**

In case of eye irritation, gently rinse with water and get medical help.

---

Date Prepared: September 25, 1986

Highway Brake & Trailer Axle Division  
13267 State Route 68 South  
Kenton, Ohio 43326  
(419) 674-4051



Rockwell  
International

11/18/85

Dear Safety Director/Purchasing Director,

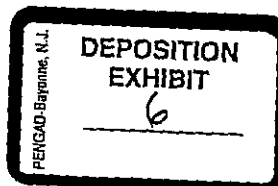
Enclosed are Material Safety Data Sheets for brake linings which are used on trailer axles sent to your company. We are sending this information as part of our effort to comply with OSHA Hazard Communication Standard, (29CFR 1910.1200).

Thank you for your attention to the attached information.

Sincerely,

Jerry Rush  
Safety Supervisor

c.c. H. Biggard  
J. Ferguson



RD 00046

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

|                                                                                                      |                                |                                                  |
|------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------|
| MANUFACTURER'S NAME<br>Motion Control Industries, Div. Carlisle Corporation                          |                                | EMERGENCY TELEPHONE NO.<br>814-773-3185          |
| ADDRESS (Number, Street, City, State, and ZIP Code)<br>P. O. Box P, Gillis Avenue, Ridgway, PA 15853 |                                |                                                  |
| CHEMICAL NAME AND SYNONYMS<br>Brake Lining CAS. NO. 1332214                                          |                                | TRADE NAME AND SYNONYMS<br>Carlisle Brake Lining |
| CHEMICAL FAMILY<br>Fibrous Mineral Silicate only hazardous substance                                 | FORMULA<br>Varies with product |                                                  |

## SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS                                                   | % | TLV (Units) | ALLOYS AND METALLIC COATINGS               | %     | TLV (Units)           |
|-------------------------------------------------------------------------------------|---|-------------|--------------------------------------------|-------|-----------------------|
| PIGMENTS N/A                                                                        |   |             | BASE METAL N/A                             |       |                       |
| CATALYST N/A                                                                        |   |             | ALLOYS N/A                                 |       |                       |
| VEHICLE N/A                                                                         |   |             | METALLIC COATINGS N/A                      |       |                       |
| SOLVENTS N/A                                                                        |   |             | FILLER METAL PLUS COATING OR CORE FLUX N/A |       |                       |
| ADDITIVES N/A                                                                       |   |             | OTHERS N/A                                 |       |                       |
| OTHERS N/A                                                                          |   |             |                                            |       |                       |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES                               |   |             |                                            | %     | TLV (Units)           |
| Compound contains asbestos, with varying percentage in individual product formulas. |   |             |                                            | 15-60 | 2f/cc<br>8 hr.<br>TWA |
|                                                                                     |   |             |                                            |       |                       |
|                                                                                     |   |             |                                            |       |                       |

## SECTION III - PHYSICAL DATA

|                         |                                     |                                       |           |
|-------------------------|-------------------------------------|---------------------------------------|-----------|
| BOILING POINT (°F.)     | N/A                                 | SPECIFIC GRAVITY (H <sub>2</sub> O=1) | 1.87-2.12 |
| VAPOR PRESSURE (mm Hg.) | N/A                                 | PERCENT VOLATILE BY VOLUME (%)        |           |
| VAPOR DENSITY (AIR=1)   | N/A                                 | EVAPORATION RATE (_____ = 1)          |           |
| SOLUBILITY IN WATER     | N/A                                 |                                       |           |
| APPEARANCE AND ODOR     | Grey - Light Tan - Slight Sour Odor |                                       |           |

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

|                                                           |                |                  |     |      |
|-----------------------------------------------------------|----------------|------------------|-----|------|
| FLASH POINT (Method used)                                 | Not applicable | FLAMMABLE LIMITS | Let | Unit |
| EXTINGUISHING MEDIA                                       | N/A            |                  |     |      |
| SPECIAL FIRE FIGHTING PROCEDURES                          | N/A            |                  |     |      |
| UNUSUAL FIRE AND EXPLOSION HAZARDS                        |                |                  |     |      |
| There are no known unusual fire and/or explosion hazards. |                |                  |     |      |

|                                                       |                                                          |
|-------------------------------------------------------|----------------------------------------------------------|
| SECTION V - HEALTH HAZARD DATA                        |                                                          |
| THRESHOLD LIMIT VALUE                                 | Asbestos threshold limit 2 f/cc 8 hr. TWA                |
| EFFECTS OF OVEREXPOSURE                               | Breathing asbestos fibres may cause serious bodily harm. |
| Effects of exposure may not be immediately evident.   |                                                          |
| EMERGENCY AND FIRST AID PROCEDURES                    |                                                          |
| Skin Contact - wash with soap and water.              |                                                          |
| Eye Contact - rinse out eyes, use protective glasses. |                                                          |

|                                      |                |   |                     |
|--------------------------------------|----------------|---|---------------------|
| SECTION VI - REACTIVITY DATA         |                |   |                     |
| STABILITY                            | UNSTABLE       |   | CONDITIONS TO AVOID |
|                                      | STABLE         | X |                     |
| INCOMPATIBILITY (Materials to avoid) |                |   |                     |
| HAZARDOUS DECOMPOSITION PRODUCTS     |                |   |                     |
| HAZARDOUS POLYMERIZATION             | MAY OCCUR      |   | CONDITIONS TO AVOID |
|                                      | WILL NOT OCCUR | X |                     |

|                                                                                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SECTION VII - SPILL OR LEAK PROCEDURES                                                                                                                                          |  |
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED                                                                                                                       |  |
| Avoid creating dust; do not breathe dust. Avoid sweeping or otherwise generating airborne particulate. Use approved vacuum method. If sweeping is necessary, wet down spillage. |  |
| WASTE DISPOSAL METHOD                                                                                                                                                           |  |
| Dust should be disposed of in sealed container. Dispose of in approved landfill.                                                                                                |  |
| Mark bags. Follow Federal, State, and Local Regulations.                                                                                                                        |  |

|                                                                                                                                                           |                      |                      |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|--|
| SECTION VIII - SPECIAL PROTECTION INFORMATION                                                                                                             |                      |                      |  |
| RESPIRATORY PROTECTION (Specify type) Use respirators as recommended by the OSHA Standard for exposure to asbestos dust, 29 CFR 1910. 1001 paragraph (d). |                      |                      |  |
| VENTILATION                                                                                                                                               | LOCAL EXHAUST        | SPECIAL              |  |
|                                                                                                                                                           | MECHANICAL (General) | OTHER                |  |
| Approved system to insure meeting T.L.V. as required by OSHA Standard, 29 CFR 1910. 1001 (c).                                                             |                      |                      |  |
| PROTECTIVE GLOVES                                                                                                                                         |                      | EYE PROTECTION       |  |
| Yes                                                                                                                                                       |                      | Yes (Safety Glasses) |  |
| OTHER PROTECTIVE EQUIPMENT Refer to OSHA asbestos standard 1910. 1001 for additional information.                                                         |                      |                      |  |

|                                                                                                                                                                                                  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| SECTION IX - SPECIAL PRECAUTIONS                                                                                                                                                                 |  |
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING                                                                                                                                                  |  |
| Avoid creating or breathing dust. Follow CAUTION label on package. Exposure levels to dust containing asbestos fibers should be monitored in accordance with OSHA regulations 29 CFR 1910. 1001. |  |
| OTHER PRECAUTIONS Substantial medical evidence indicates that smoking will increase the risk from asbestos exposure. Those working with products containing asbestos should not smoke.           |  |

PAGE (2) THIS DATA SHEET IS NOT PART OF ANY CONTRACT OR SALE. WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE Form OSHA-20  
 CPD 930-540 CARLISLE CORPORATION MAKES NO WARRANTY WITH RESPECT THERETO AND Rev May 72  
 DISCLAIM ALL LIABILITY FROM RELIANCE THEREON.

RD 00048

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreacking (29 CFR 1915, 1916, 1917)

Varies with product

| SECTION V - HEALTH HAZARD DATA                        |                                                |
|-------------------------------------------------------|------------------------------------------------|
| THRESHOLD LIMIT VALUE                                 | Nuisance dust (15 mg/m <sup>3</sup> ) OSHA TLV |
| EFFECTS OF OVEREXPOSURE                               | Not established                                |
| EMERGENCY AND FIRST AID PROCEDURES                    |                                                |
| Skin contact - wash with mild soap and water          |                                                |
| Eye contact - rinse out eyes, wear protective goggles |                                                |

| SECTION VI - REACTIVITY DATA         |                |   |                     |
|--------------------------------------|----------------|---|---------------------|
| STABILITY                            | UNSTABLE       |   | CONDITIONS TO AVOID |
|                                      | STABLE         | X |                     |
| INCOMPATABILITY (Materials to avoid) |                |   |                     |
| HAZARDOUS DECOMPOSITION PRODUCTS     |                |   |                     |
| HAZARDOUS POLYMERIZATION             | MAY OCCUR      |   | CONDITIONS TO AVOID |
|                                      | WILL NOT OCCUR | X |                     |

| SECTION VII - SPILL OR LEAK PROCEDURES                                                                                                                     |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED                                                                                                  |  |
| Avoid creating dust. Avoid sweeping or otherwise generating airborne particulate. Use approved vacuum method. If sweeping is necessary, wet down spillage. |  |
| WASTE DISPOSAL METHOD                                                                                                                                      |  |
| Dispose of in approved landfills. Follow Federal, State, and Local Regulations.                                                                            |  |

| SECTION VIII - SPECIAL PROTECTION INFORMATION                                                                        |                                                   |                                                                |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------|
| RESPIRATORY PROTECTION (Specify type)<br>NIOSH - BUR-MINES approved respirator for nuisance dust if TLV is exceeded. |                                                   |                                                                |
| VENTILATION                                                                                                          | LOCAL EXHAUST<br>Per ANSI Z9.2 - 1971 recommended | SPECIAL<br>None                                                |
|                                                                                                                      | MECHANICAL (General)                              | OTHER                                                          |
| PROTECTIVE GLOVES<br>Work Gloves usually adequate                                                                    |                                                   | EYE PROTECTION<br>Dust goggles meeting latest ANSI Z-87.1 spec |
| OTHER PROTECTIVE EQUIPMENT<br>None                                                                                   |                                                   |                                                                |

| SECTION IX - SPECIAL PRECAUTIONS                                          |  |
|---------------------------------------------------------------------------|--|
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING                           |  |
| Avoid creating or breathing dust.                                         |  |
| OTHER PRECAUTIONS                                                         |  |
| Protective creams may also be used, especially those with sensitive skin. |  |

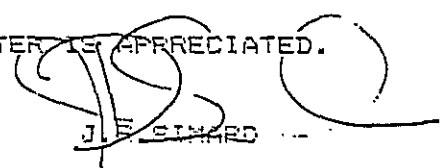
NEW OSHA ASBESTOS HAZARD REGULATION  
FEBRUARY 4, 1986

AS YOU ARE AWARE THE NEW MSDS (ASBESTOS) REGULATION AFFECTS  
OUR SERVICE BUSINESS AS WE SUPPLY ASBESTOS LININGS FOR THE  
AFTER MARKET.

OUR RESPONSIBILITIES UNDER THIS NEW REGULATION ARE TO SUPPLY  
OUR CUSTOMERS WITH SAFETY DATA SHEETS FOR ALL LININGS SHIPPED  
TO OUR CUSTOMERS WHICH CONTAIN ASBESTOS AND TO UPDATE OUR  
CUSTOMERS AS REQUIRED IF THERE ARE CHANGES TO THE SAFETY DATA  
SHEETS. THE ACTUAL SAFETY DATA SHEETS ARE SUPPLIED TO US BY OUR  
VENDORS.

AS OF TODAY WE HAVE COMPLIED WITH THIS NEW REGULATION BY  
FORWARDING THE REQUIRED SAFETY DATA SHEETS TO OUR AFTER MARKET  
CUSTOMERS. HOWEVER, IT IS IMPERATIVE THAT ANY REVISIONS MADE TO  
DATA INFORMATION IS IMMEDIATELY COMMUNICATED TO OUR SAFETY  
DEPARTMENT IN ORDER THAT WE MAY INFORM OUR CUSTOMERS.

YOUR CO-OPERATION IN THIS MATTER IS APPRECIATED.

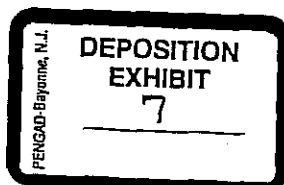
  
J. E. SIMARD

DISTRIBUTION:

K. MYERS B. SMITH D. ZEMMICKY M. LEBLANC D. ANDERSON

CC:

J. THOMPSON G. WILLIS M. McCONNELL



RD 00044



Rockwell International  
of Canada Ltd

P. O. Box 250  
HIGHWAY No. 2  
TILBURY, ONTARIO, CANADA N0P 2L0  
(519) 682-1740

February 5, 1986

Rockwell International  
Hebron Road - Route 79  
Newark, Ohio  
43055

Subject: OSHA Hazard Communication  
Standard CFR 1910.1200

Dear Material Manager:

To comply with the above-mentioned OSHA regulation, Rockwell International Tilbury Plant, is sending to all of our customers new Material Safety Data Sheets (from our asbestos vendors).

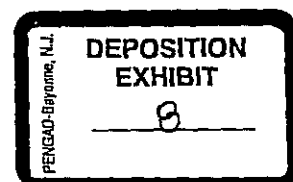
These Material Safety Data Sheets have been updated and include the products you currently purchase, as well as products you may purchase from Rockwell in the future.

Sincerely,

Ken Myers  
Eng. & Rel. Manager

/dz

cc: G. Willis  
J. Thompson  
J. Simard



RD 00055

## PRODUCT FACT SHEET

COMPILED: NOVEMBER 1985 BY ALLIED CORPORATION, AUTOMOTIVE SECTOR  
BENDIX FRICTION MATERIALS DIVISION, P.O. BOX 238, TROY, NY 12181

PRODUCTS - BENDIX FRICTION MATERIALS COVERED BY THIS PRODUCT FACT SHEET CAN BE IDENTIFIED AS FOLLOWS:

BRAKE BLOCK FORMULA B-4123

### SAFETY AND HEALTH INFORMATION

FIRE AND EXPLOSION - PRODUCT IS CLASSIFIED AS NON-COMBUSTIBLE, REQUIRES NO SPECIAL FIRE FIGHTING PROCEDURES, AND DOES NOT PRESENT ANY UNUSUAL FIRE, EXPLOSION OR REACTIVITY HAZARD. SMALL FIRES MAY BE EXTINGUISHED WITH CARBON DIOXIDE OR DRY CHEMICAL. LARGE FIRES MAY BE EXTINGUISHED WITH FOAM AND WATER.

HEALTH - NO THRESHOLD LIMIT VALUE (TLV) HAS BEEN ESTABLISHED FOR THE ASBESTOS FIBERS COATED WITH PHENOLIC RESIN. HOWEVER, A TLV HAS BEEN ESTABLISHED FOR FREE ASBESTOS FIBERS OF 2.0 FIBERS/CC OF AIR. OSHA HAS PROPOSED A REDUCTION IN THIS TLV TO 0.2 FIBERS/CC. INHALATION OF EXCESSIVE CONCENTRATION OF ASBESTOS FIBERS HAS BEEN ASSOCIATED WITH CERTAIN SERIOUS HEALTH PROBLEMS SUCH AS ASBESTOSIS OR MESOTHELIOMA. SYMPTOMS OF OVEREXPOSURE ARE LATENT FOR EXTENDED PERIODS OF TIME.

RECOMMENDED WASTE DISPOSAL - DISPOSE OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS IN PROPER RECEPTACLES, APPROPRIATELY LABELLED.

RECOMMENDED PRECAUTION - IF AIRBORNE ASBESTOS FIBER CONCENTRATION EXCEEDS OSHA LIMITS, APPROVED RESPIRATORS SHOULD BE WORN AND PROPER ENGINEERING CONTROLS IMPLEMENTED. IF PRODUCT IS GROUND OR MACHINED, LOCAL VENTILATION TO CONTROL EXPOSURE IS RECOMMENDED.

THE WORK ENVIRONMENT SHOULD BE MONITORED TO DETERMINE WHETHER EMPLOYEE EXPOSURE EXCEEDS OSHA THRESHOLD LIMIT VALUE IN ACCORDANCE WITH OSHA REGULATION 29 CFR PART 1910.1001.

PACKAGES CONTAINING THE PRODUCT SHOULD BE LABELED IN ACCORDANCE WITH OSHA REGULATION 29 CFR PART 1910.1001(g)(2) AS FOLLOWS:

CAUTION  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
BREATHING ASBESTOS DUST MAY CAUSE  
SERIOUS BODILY HARM

STANDARD INDUSTRIAL HYGIENE, PRACTICES INCLUDING GOOD HOUSEKEEPING AND VACUUMING OR WET CLEANING WORK SURFACES TO PREVENT ASBESTOS FIBERS FROM BECOMING AIRBORNE, SHOULD BE INSTITUTED OR IMPLEMENTED.

THE FOREGOING DATA IS SUBMITTED SOLELY FOR YOUR INFORMATION, CONSIDERATION, AND INVESTIGATION. BENDIX MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, AND ASSUMES NO RESPONSIBILITY FOR ACCURACY OF THE FOREGOING DATA.

(OVER)

RD 00056

## RECOMMENDED PROCEDURES FOR REDUCING ASBESTOS DUST DURING BRAKE SERVICING

Because studies have indicated that exposure to excessive amounts of asbestos dust may be a potential health hazard, OSHA has set maximum limits of levels of airborne asbestos dust to which workers may be exposed. Since most automotive friction materials normally contain a sizable amount of asbestos, it is important that people who handle brake linings and clutch facings understand the nature of the problem and know the precautions to be taken.

1. Areas where brake work is done should be set aside if possible, and entrances should be posted with an asbestos exposure sign as follows:

**Asbestos  
Dust Hazard  
Avoid Breathing Dust  
Wear Assigned Protective Equipment  
Do Not Remain in Area Unless Your Work  
Requires It  
Breathing Asbestos Dust May Be Hazardous  
To Your Health**

2. The amount of asbestos in the dust from brake lining wear is normally at an extremely low level because of chemical breakdown during use, and if machining of friction material does not take place, simple procedures will minimize exposure. During brake servicing, the mechanic should wear a respirator approved by NIOSH for asbestos dust. It should be worn during all procedures starting with the removal of wheels and including reassembly.
3. When removing worn friction materials, remove the accumulated dust in the assemblies with an industrial vacuum cleaner equipped with a high efficiency filter system. If such equipment is not available, dust can be removed with a damp cloth. Do not use compressed air or dry brushing for cleaning unless the assembly is enclosed and properly exhausted.
4. Whenever possible, purchase friction materials pre-ground and ready for installation. If machining is necessary, the precautions which must be taken are of extreme importance. This is the operation in brake service when exposure to asbestos dust may

be at its highest. This increases the difficulty in complying with the OSHA standards. In addition to the approved respirator, there must be local exhaust ventilation such that worker exposures are maintained below the OSHA asbestos standards. If there is any question as to the efficiency of asbestos dust removal by the machine, the manufacturer should be contacted.

5. Industrial vacuum cleaner bags containing asbestos dust and cloths used for wiping brake assemblies should be sealed in plastic bags and labeled with the following warning label printed in letters of sufficient size and contrast to be readily visible and legible.

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

All asbestos waste should be disposed of in accordance with OSHA and EPA asbestos regulations. During removal of vacuum bags, an approved respirator, as described in (2) above should be worn.

6. Good housekeeping is essential in a workplace where asbestos containing materials are handled. Industrial vacuum cleaners equipped with multiple stage high efficiency filters should be used for removing accumulations of asbestos dust and waste. Never use compressed air or dry sweeping for cleaning. Water or other dust suppressants should be applied if brooms are used.
7. Good personal hygiene practices are important in minimizing asbestos dust exposure. Do not smoke. Wash before eating. Shower after work. Change to work clothes upon arrival at work and change from work clothes at conclusion of work. Work clothing should not be taken home. Laundering of asbestos contaminated clothing shall be done so as to prevent release of airborne asbestos fibers in excess of the exposure limits.

**CAUTION: DO NOT BREATHE ASBESTOS DUST**

100 22 1000

THE ABOVE PROCEDURE IS REPRODUCED FROM THE 1983 EDITION OF FMSI'S BRAKE LINING, BRAKE SHOE AND CLUTCH FACING AUTOMOTIVE DATA BOOK OF CANADA LIMITED

# MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's  
Hazard Communication Standard  
29 CFR 1910.1200. Standard must  
be consulted for specific  
requirements.

MOTION CONTROL INDUSTRIES

**CARLISLE**

Carlisle brake lining is a resin bonded product. When used as intended this product meets the OSHA definition of an article and is exempt from the Hazard Communication Standard. A potential for exposure to dust when grinding, drilling, milling, etc. exists and therefore all information contained within should be followed.

Materials listed on this data sheet are contained in this product. Exact percentages are proprietary and confidential and will not be disclosed other than as required in accordance with the regulations.

The data sheet is not part of any contract or sale. While the information and recommendations set forth herein are believed to be accurate, Carlisle Corporation makes no warranty with respect thereto and disclaims all liability from reliance thereon.

## IDENTITY (As Used on Label and List):

8C5, HDB, SM12, 45W, 43W, D39A, D39, SM14, B62, B62-6, 141, 243, 345, D16, 262E, G316, SMB1A, DB2A4, PCL, 41W, R31, E3A, DB67

## SECTION I

### MANUFACTURER'S NAME & ADDRESS:

Motion Control Industries  
P. O. Box P, Gillis Avenue  
Ridgway, PA 15853

### EMERGENCY TELEPHONE NUMBER:

814-773-3185

### TELEPHONE NUMBER FOR INFORMATION:

814-773-3185

### SIGNATURE OF PREPARER:

*Robert M. Tami*

DATE PREPARED: November 18, 1985

Robert M. Tami

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

| HAZARDOUS COMPONENTS                                 | OSHA PEL               | ACGIH TLV             |
|------------------------------------------------------|------------------------|-----------------------|
| (Specific Chemical Identity, Common Name (s))        |                        |                       |
| Asbestos (Crysotile)                                 | 2 fibers/cc            | 2 fibers/cc           |
| Silica, Silicates                                    | 0.1 mg/m <sup>3</sup>  | 0.1 mg/m <sup>3</sup> |
| Carbon Black, Graphite, Coal, Coke                   | 2.0 mg/m <sup>3</sup>  | 2.0 mg/m <sup>3</sup> |
| Aluminum, Iron, Magnesium, Oxides, Calcium Carbonate | 10.0 mg/m <sup>3</sup> | 10 mg/m <sup>3</sup>  |
| Phenolic and Cashew Resins                           | 5.0 mg/m <sup>3</sup>  | 5.0 mg/m <sup>3</sup> |
| Flourides                                            | 2.5 mg/m <sup>3</sup>  | 2.5 mg/m <sup>3</sup> |

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A      SPECIFIC GRAVITY (H<sub>2</sub>O - 1): 1.8-3.0  
VAPOR PRESSURE (mm Hg.): N/A      MELTING POINT: N/A  
VAPOR DENSITY (AIR - 1): N/A      EVAPORATION RATE (Butyl Acetate - 1): 0  
SOLUBILITY IN WATER: None  
APPEARANCE AND ODOR: Solid - Light Tan to Dark Gray Color - Slight Sour Odor

-----SECTION IV - FIRE AND EXPLOSION HAZARD DATA-----

FLASH POINT: N/A FLAMMABLE LIMITS: N/A LEL — UEL —  
EXTINGUISHING MEDIA: Water, Class A, B, and C Extinguisher  
SPECIAL FIRE FIGHTING PROCEDURES: None  
UNUSUAL FIRE & EXPLOSION HAZARDS: None Known

-----SECTION V - REACTIVITY DATA-----

STABILITY: Unstable ☐ Conditions to Avoid: None  
Stable ☒

INCOMPATIBILITY (Materials to Avoid): None Known

HAZARDOUS DECOMPOSITION OF BYPRODUCTS: None Known

HAZARDOUS

POLYMERIZATION: May Occur ☐ Conditions to Avoid: None Known  
Will Not Occur ☒

-----SECTION VI - HEALTH HAZARD DATA-----

ROUTE(S) OF ENTRY: Inhalation? Yes Skin? Yes Ingestion? No

HEALTH HAZARDS (Acute and Chronic): Dusts of asbestos, silica, graphites, carbon, and coal can produce pneumoconiosis and lung damage. People with sensitive skin may have reactions to phenolic and cashew resins.

CARCINOGENICITY: Asbestos NTP? Yes IARC Monographs? Yes OSHA Regulated? No

SIGNS AND SYMPTOMS OF EXPOSURE: None Known

MEDICAL CONDITIONS

GENERALLY AGGRAVATED BY EXPOSURE: Employees with highly sensitive skin could develop rash.

EMERGENCY AND FIRST AID PROCEDURES: Should not be necessary during normal handling procedures.

-----SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE-----

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid creating dust; do not breathe dust. Avoid sweeping or otherwise generating airborne particulate. If sweeping is necessary, wet down spillage.

WASTE DISPOSAL METHOD: Asbestos - 40 CFR, part 64.29CFR, part 1910.1001. Dust should be disposed of in a sealed, marked container. Follow Federal, State, & Local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid creating or breathing dust. Follow caution labels on package. Exposure to asbestos fibers should be monitored in accordance with 29CFR 1910.1001.

OTHER PRECAUTIONS: Substantial medical evidence indicates that smoking will increase the risk from asbestos exposure. Those working with products containing asbestos should not smoke.

-----SECTION VIII - CONTROL MEASURES-----

RESPIRATORY PROTECTION (Specify Type): Use respirators recommended for asbestos exposure. Information found in 29CFR 1910.1001 paragraph (d).

VENTILATION: Local Exhaust - 29CFR 1910.1001 to meet OSHA T.L.V. Special - None Known  
Mechanical (General) - Same Other - None Known

PROTECTIVE GLOVES: As Required EYE PROTECTION: Yes (OSHA approved)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: As required under 1910.1001.

WORK/HYGIENIC PRACTICES: Refer to OSHA standard 1910.1001 for additional information.

# MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's  
Hazard Communication Standard  
29 CFR 1910.1200. Standard must  
be consulted for specific  
requirements.

MOTION CONTROL INDUSTRIES

**CARLISLE**

-----  
Carlisle brake lining is a resin bonded product. When used as intended this product meets the OSHA definition of an article and is exempt from the Hazard Communication Standard. A potential for exposure to dust when grinding, drilling, milling, etc. exists and therefore all information contained within should be followed.

Materials listed on this data sheet are contained in this product. Exact percentages are proprietary and confidential and will not be disclosed other than as required in accordance with the regulations.

The data sheet is not part of any contract or sale. While the information and recommendations set forth herein are believed to be accurate, Carlisle Corporation makes no warranty with respect thereto and disclaims all liability from reliance thereon.

-----  
IDENTITY (As Used on Label and List):

EW1, NAB9M, NAB9ML, NAB9MK, E145A, DE2, DS3, DE3

-----SECTION I-----

MANUFACTURER'S NAME & ADDRESS:

Motion Control Industries  
P. O. Box P, Gillis Avenue  
Ridgway, PA 15853

EMERGENCY TELEPHONE NUMBER:

814-773-3185

TELEPHONE NUMBER FOR INFORMATION:

814-773-3185

SIGNATURE OF PREPARER: *Robert M. Tami*

DATE PREPARED: November 18, 1985

Robert M. Tami

-----SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION-----

| HAZARDOUS COMPONENTS<br>(Specific Chemical Identity, Common Name (s)) | OSHA PEL              | ACGIH TLV             |
|-----------------------------------------------------------------------|-----------------------|-----------------------|
| Silica - Silicates                                                    | 0.1 mg/m <sup>3</sup> | 0.1 mg/m <sup>3</sup> |
| Glass Fiber                                                           | 15 mg/m <sup>3</sup>  | 10 mg/m <sup>3</sup>  |
| Carbon Black - Graphite, Coal, Graphites                              | 2.0 mg/m <sup>3</sup> | 2.0 mg/m <sup>3</sup> |
| Calcium Carbonate, Mineral Wools, Aluminum, Iron,                     |                       |                       |
| Magnesium Oxide                                                       | 10 mg/m <sup>3</sup>  | 10 mg/m <sup>3</sup>  |
| Phenolic and Cashew Resins                                            | 5.0 mg/m <sup>3</sup> | 5.0 mg/m <sup>3</sup> |
| Fluorides                                                             | 2.5 mg/m <sup>3</sup> | 2.5 mg/m <sup>3</sup> |

-----SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS-----

BOILING POINT: N/A      SPECIFIC GRAVITY (H<sub>2</sub>O - 1): 1.8-3.5  
VAPOR PRESSURE (mm Hg.): N/A      MELTING POINT: N/A  
VAPOR DENSITY (AIR - 1): N/A      EVAPORATION RATE (Butyl Acetate - 1): 0  
SOLUBILITY IN WATER: None  
APPEARANCE AND ODOR: Solid - Light Tan to Dark Grey Color - Slight Sour Odor

Form 7-N

RD 00060

-----SECTION IV - FIRE AND EXPLOSION HAZARD DATA-----

FLASH POINT: N/A FLAMMABLE LIMITS: N/A LEL \_\_\_\_ UEL \_\_\_\_  
EXTINGUISHING MEDIA: Water, Extinguisher class A, B, and C  
SPECIAL FIRE FIGHTING PROCEDURES: None Known  
UNUSUAL FIRE & EXPLOSION HAZARDS: None Known

-----SECTION V - REACTIVITY DATA-----

STABILITY: Unstable ☐ Conditions to Avoid: N/A  
Stable ☒

INCOMPATIBILITY (Materials to Avoid): None Known

HAZARDOUS DECOMPOSITION OF BYPRODUCTS: None Known

HAZARDOUS

POLYMERIZATION: May Occur ☐ Conditions to Avoid: None Known  
Will Not Occur ☒

-----SECTION VI - HEALTH HAZARD DATA-----

ROUTE(S) OF ENTRY: Inhalation? Yes Skin? Yes Ingestion? No

HEALTH HAZARDS (Acute and Chronic): Dusts from glass fibers, silica, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Employees with sensitive skin may have a positive reaction to glass fiber & cashew and phenolic resins.

CARCINOGENICITY: NTP? -- IARC Monographs? -- OSHA Regulated? No

SIGNS AND SYMPTOMS OF EXPOSURE: Rash may develop on skin of employees with sensitive skin.

MEDICAL CONDITIONS

GENERALLY AGGRAVATED BY EXPOSURE: None Known.

EMERGENCY AND FIRST AID PROCEDURES: Should not be necessary from reasonable handling of product.

-----SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE-----

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid creating dust. Avoid sweeping or otherwise generating airborne particulate. Use approved vacuum methods.

WASTE DISPOSAL METHOD: Follow Local, State, and Federal waste disposal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid creating excessive dust.

OTHER PRECAUTIONS: Protective creams and sleeves may be necessary for employees with sensitive skin.

-----SECTION VIII - CONTROL MEASURES-----

RESPIRATORY PROTECTION (Specify Type): NIOSH approved for pneumoconiosis and fibrosis producing dusts with TLV's not less than 0.05 mg/m<sup>3</sup>.

VENTILATION: Local Exhaust - Per ANSI 29.2-1971 recommended Special - --  
Mechanical (General) - -- Other - --

PROTECTIVE GLOVES: As needed EYE PROTECTION: OSHA approved safety glasses

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Protective sleeves and creams for employees with sensitive skin.

WORK/HYGIENIC PRACTICES: Proper work practices and methods should be followed when handling product. Employees should be instructed on the use of the control methods as outlined above.

## MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910, 1200.  
Standard must be consulted for specific requirements.

The product identity on this page meets the OSHA definition of an article and is exempt from the Hazard Communication Standard as to all normally careful uses. Some potential may exist for exposure to dust.

The ingredients in these products are resin-bonded and hazards normally associated with contact to pure dusts of the listed ingredients should not be significant. Abex has listed all of the essential ingredients present in a series of products of this general description. All products identified on this MSDS contain powder metal but will not contain all of the other materials shown. The recommended exposure limits are those for the most hazardous substance in a class of substances. Exact formulation is considered proprietary and confidential. Precise product information will not be disclosed, other than to a health professional in accordance with the regulations, without an approved Secrecy Agreement.

The information herein is believed to be accurate, however, Abex makes no representation or warranty as to its accuracy. This data is furnished gratuitously and independently of any sale of the product, and only for customer investigation and independent verification.

Abex shall in no event be responsible for any damages of whatever nature directly or indirectly resulting from the publication or use of or reliance upon data contained herein. No express or implied warranty of any kind, including warranties of merchantability or fitness for use, with respect to the product or to the data herein is made hereunder.

### IDENTITY (As Used on Label and List)

175-59&60, 720W&R, 916, 916-(46, 46Q &46Q2), 3042-11 & 18, ABEX (669FF, 670FF, 641FF, 6006EE, 682GG), ABB (259FF, 261FF, 255FF, 2000EE), COM (359FF, 360FF, 366FF, 390EE).

### SECTION I

|                                                                                                                        |                                                        |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>Manufacturer's Name:</b> ABEX CORPORATION<br>Friction Products Division                                             | <b>Emergency Telephone Number</b> (703) 662-3842       |
|                                                                                                                        | <b>Telephone Number for Information</b> (703) 662-3871 |
| <b>Address:</b> (Number, Street, City, State, Zip Code)<br>2410 Papermill Road, P.O. Box 3250<br>Winchester, VA. 22601 | <b>Date Prepared</b> November 12, 1985                 |
|                                                                                                                        | <b>Preparer</b> M. K. Leung                            |

### SECTION II - Hazardous Ingredients/Identity Information

| Hazardous Components<br>(Specific Chemical Identity: Common Name(s)) | OSHA                   | PEL | ACGIH                  | TLV |
|----------------------------------------------------------------------|------------------------|-----|------------------------|-----|
| Silica, Silicates, Tripoli                                           | 0.1 mg/M <sup>3</sup>  |     | 0.1 mg/M <sup>3</sup>  |     |
| Carbon Black, Graphite, Coal, Coke                                   | 2.0 mg/M <sup>3</sup>  |     | 2.0 mg/M <sup>3</sup>  |     |
| Phenolic and Cashew Compounds                                        | 5.0 mg/M <sup>3</sup>  |     | 5.0 mg/M <sup>3</sup>  |     |
| Wood Flour and Other Fillers                                         | 1.0 mg/M <sup>3</sup>  |     | 1.0 mg/M <sup>3</sup>  |     |
| Iron and Fiber, Zinc, Aluminum, Brass, Magnesium, and their Oxides   | 10.0 mg/M <sup>3</sup> |     | 10.0 mg/M <sup>3</sup> |     |

### SECTION III - Physical / Chemical Characteristics

|                                                             |    |                                              |     |
|-------------------------------------------------------------|----|----------------------------------------------|-----|
| <b>Boiling Point</b>                                        | NA | <b>Specific Gravity (H<sub>2</sub>O - 1)</b> | 3-4 |
| <b>Vapor Pressure (mm Hg.)</b>                              | NA | <b>Melting Point</b>                         | NA  |
| <b>Vapor Density (Air - 1)</b>                              | NA | <b>Evaporation Rate (Butyl Acetate - 1)</b>  | 0   |
| <b>Solubility in Water</b> No                               |    |                                              |     |
| <b>Appearance and Odor</b> Solid, Odor, Brownish Grey Color |    |                                              |     |

## SECTION IV - Fire and Explosion Hazard Data

|                                    |                           |                  |     |     |
|------------------------------------|---------------------------|------------------|-----|-----|
| Flash Point (Method Used)          | NA                        | Flammable Limits | LEL | UEL |
| Extinguishing Media                | Water, (Class A, B, or C) |                  |     |     |
| Special Fire Fighting Procedures   | NK                        |                  |     |     |
| Unusual Fire and Explosion Hazards | NK                        |                  |     |     |

## SECTION V - Reactivity Data

|                                       |                                                                |   |                     |    |
|---------------------------------------|----------------------------------------------------------------|---|---------------------|----|
| Stability                             | Unstable                                                       |   | Conditions to Avoid | NK |
|                                       | Stable                                                         | X |                     |    |
| Incompatibility (Materials to Avoid)  | NK                                                             |   |                     |    |
| Hazardous Decomposition or Byproducts | Incomplete combustion will create carbon monoxide and dioxide. |   |                     |    |
| Hazardous Polymerization              | May Occur                                                      |   | Conditions to Avoid | NK |
|                                       | Will Not Occur                                                 | X |                     |    |

## SECTION VI - Health Hazard Data

|                                                                                                                                                                                                                                                                                                                                                                                                          |             |                       |                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|-----------------------|
| Route(s) of Entry:                                                                                                                                                                                                                                                                                                                                                                                       | Inhalation? | Skin?                 | Ingestion?            |
| <b>Health Hazards (Acute and Chronic)</b><br>Some persons may be sensitive to cashew resins and develop dermatitis-type problems. Dust of silica, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Metal dusts can be irritants of the eyes and upper respiratory system. There is little evidence of chronic industrial poisoning from iron, aluminum, and zinc dust. |             |                       |                       |
| Carcinogenicity:                                                                                                                                                                                                                                                                                                                                                                                         | NTP?<br>—   | IARC Monographs?<br>— | OSHA Regulated?<br>NO |
| <b>Signs and Symptoms of Exposure</b><br>Cashew resins - skin eruptions similar in appearance to poison ivy. Pneumoconiosis - coughing, wheezing, shortness of breath, impaired pulmonary function. Dusts in eye may cause irritation. Gastrointestinal disturbances possible from ingestion.                                                                                                            |             |                       |                       |
| <b>Medical Conditions</b><br>Generally Aggravated by Exposure NK                                                                                                                                                                                                                                                                                                                                         |             |                       |                       |
| <b>Emergency and First Aid Procedures</b><br>Should not be necessary from the handling of this product.                                                                                                                                                                                                                                                                                                  |             |                       |                       |

### SECTION VII - Precautions for Safe Handling and Use

#### Steps to Be Taken in Case Material is Released or Spilled

Grinding, drilling, milling, etc. can result in the release of airborne dust. Measures as outlined in Section VIII should be followed if this occurs.

#### Waste Disposal Method

Hazardous ingredients: 40 CFR, Part 261, 262 and applicable State and Local regulations.

#### Other Precautions

Pre-employment screening for allergies and histories of skin sensitivities may be beneficial in determining persons sensitive to cashew materials.

### SECTION VIII - Control Measures

Respiratory Protection (Specify Type) NIOSH approved for pneumoconiosis and dust with TLV not less than 0.05 mg/M<sup>3</sup>.

#### Ventilation

Local Exhaust For dust exposures exceeding TLV.

Mechanical (General) Not recommended for dust exposures.

Special NK

Other Barrier creams for persons with skin sensitive to cashew resins.

#### Protective Gloves

Recommended.

#### Eye Protection

Should not be needed for normal handling of product. Eye protection is good practice where dust is propelled by grinding or drilling activities.

#### Other Protective Clothing or Equipment

Long sleeved shirts or other protective clothing may be beneficial to prevent skin contact of persons sensitive to cashew resins.

#### Work/Hygienic Practices

Employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from this product is produced, unnecessary exposures should be avoided by using a vacuum in place of dry brooming. Use wet method of cleaning for other surfaces. Proper and adequate personal hygiene should be practiced by exposed workers.

NA - Not Available

NK - Not Known

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U.S. DEPARTMENT OF JUSTICE

RD 00064

Form #3

## MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910, 1200.  
Standard must be consulted for specific requirements.

The product identity on this page meets the OSHA definition of an article and is exempt from the Hazard Communication Standard as to all normally careful uses. Some potential may exist for exposure to dust.

The ingredients in these products are resin-bonded and hazards normally associated with contact to pure dusts of the listed ingredients should not be significant. Abex has listed all of the essential ingredients present in a series of products of this general description. All products identified on this MSDS contain asbestos but will not contain all of the other materials shown. The recommended exposure limits are those for the most hazardous substance in a class of substances. Exact formulation is considered proprietary and confidential. Precise product information will not be disclosed, other than to a health professional in accordance with the regulations, without an approved Secrecy Agreement.

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### IDENTITY (As Used on Label and List)

40 Series, 41-16, 546 Series, 48-2, 74-12, 74-13E, 80, S102, 129-10, 150-102, 278-4A, 303-11, 343W, 438, 562-SAE  
610-1244, 192, 623-49, 693-499 Series 693-1512, 531, 539, 1551 Series, 734-161, 822-448, 852-1054, 106, 891-1, 985-146, 634711, 1000-12, 1202-8, 3023-7, 3025-934273, 3032-7, ABEX (610GG, 611GG, 607FE, 620FD, 632DD, 631GE, 604FF, 693EF, 630FF, 629FE, 605GH, 614EF, 633EE, 613GG, 674GG, 680GG, 679GG, 616FF, 644FE, 688FF, 689FF, 6040FF, 686FF, 692FF, 684FF), A88 (220GG, 222GG, 203FE, 204FD, 216DD, 229GE, 206FF, 258EF, 234FF, 221FE, 209GH, 207EF, 223EE, 208GG, 240GG, 241GG, 280FF, 217FF, 245FE, 266FF, 297FF, 283FF, 295FF, 297FF), COM (318GG, 320GG, 301FE, 302FD, 314DD, 327GE, 304FF, 358EF, 332FF, 319FE, 307GH, 305EF, 321EE, 306GG, 355GG, 340GG, 315FF, 368FE, 352FE, 353FF, 376FF, 386FF, 373FF, 378FF, 365FF, ST, 204FD, ST, 279FE, ES638FE, ST280FF, ES639FF, ST244F

### SECTION I

|                                                                                                                        |                                                        |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>Manufacturer's Name: ABEX CORPORATION</b><br>Friction Products Division                                             | <b>Emergency Telephone Number</b> (703) 662-3842       |
|                                                                                                                        | <b>Telephone Number for Information</b> (703) 662-3871 |
| <b>Address: (Number, Street, City, State, Zip Code)</b><br>2410 Papermill Road, P.O. Box 3250<br>Winchester, VA. 22601 | <b>Date Prepared</b> November 12, 1985                 |
|                                                                                                                        | <b>Preparer</b> M. K. Leung                            |

### SECTION II - Hazardous Ingredients/Identity Information

| Hazardous Components<br>(Specific Chemical Identity: Common Name(s)) | OSHA | PEL                    | ACGIH | TLV                    |
|----------------------------------------------------------------------|------|------------------------|-------|------------------------|
| Asbestos (Crysotile), Talc                                           |      | 2 fibers/c.c.          |       | 2 fibers/c.c.          |
| Silica, Silicate, Tripoli                                            |      | 0.1 mg/M <sup>3</sup>  |       | 0.1 mg/M <sup>3</sup>  |
| Carbon Black, Graphite, Coal, Coke                                   |      | 2.0 mg/M <sup>3</sup>  |       | 2.0 mg/M <sup>3</sup>  |
| Phenolic and Cashew Compounds                                        |      | 5.0 mg/M <sup>3</sup>  |       | 5.0 mg/M <sup>3</sup>  |
| Wood Flour and Other Fillers                                         |      | 1.0 mg/M <sup>3</sup>  |       | 1.0 mg/M <sup>3</sup>  |
| Iron, Zinc, Aluminum, and their Oxides                               |      | 10.0 mg/M <sup>3</sup> |       | 10.0 mg/M <sup>3</sup> |
| Copper Oxide                                                         |      | 1.0 mg/M <sup>3</sup>  |       | 1.0 mg/M <sup>3</sup>  |

### SECTION III - Physical / Chemical Characteristics

|                                                                           |    |                                              |           |
|---------------------------------------------------------------------------|----|----------------------------------------------|-----------|
| <b>Boiling Point</b>                                                      | NA | <b>Specific Gravity (H<sub>2</sub>O - 1)</b> | 1.8 - 2.8 |
| <b>Vapor Pressure (mm Hg.)</b>                                            | NA | <b>Melting Point</b>                         | NA        |
| <b>Vapor Density (Air - 1)</b>                                            | NA | <b>Evaporation Rate (Butyl Acetate - 1)</b>  | 0         |
| <b>Solubility in Water</b> No                                             |    |                                              |           |
| <b>Appearance and Odor</b> Solid, Orderless, Light Tan to Dark Grey Color |    |                                              |           |

| SECTION IV - Fire and Explosion Hazard Data |                           |                  |    |
|---------------------------------------------|---------------------------|------------------|----|
| Flash Point (Method Used)                   | NA                        | Flammable Limits | NA |
| Extinguishing Media                         | Water, (Class A, B, or C) |                  |    |
| Special Fire Fighting Procedures            | NK                        |                  |    |
| Unusual Fire and Explosion Hazards          |                           |                  |    |
| NK                                          |                           |                  |    |

| SECTION V - Reactivity Data           |                                                                |   |                     |
|---------------------------------------|----------------------------------------------------------------|---|---------------------|
| Stability                             | Unstable                                                       |   | Conditions to Avoid |
|                                       | Stable                                                         | X | NK                  |
| Incompatibility (Materials to Avoid)  | NK                                                             |   |                     |
| Hazardous Decomposition or Byproducts | Incomplete combustion will create carbon monoxide and dioxide. |   |                     |
| Hazardous Polymerization              | May Occur                                                      |   | Conditions to Avoid |
|                                       | Will Not Occur                                                 | X | NK                  |

| SECTION VI - Health Hazard Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                  |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|-----------------|
| Route(s) of Entry:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Inhalation? Yes | Skin? Yes        | Ingestion? Yes  |
| Health Hazards (Acute and Chronic)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |                 |
| <p>Some persons may be sensitive to cashew resins and develop dermatitis-type problems. Dust of asbestos, silica, talc, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Metal dusts can be irritants of the eyes and upper respiratory system. There is little evidence of chronic industrial poisoning from iron, aluminum, and zinc dusts. Copper may cause keratinization and discoloring of the skin. Chronic intoxication from copper is rare and only in persons with Wilson's Disease. Zinc and copper can produce metal fume fever, but is generally associated with exposures to freshly generated fume of those alloys (molten state).</p> |                 |                  |                 |
| Carcinogenicity:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NTP?            | IARC Monographs? | OSHA Regulated? |
| Asbestos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes             | Yes              | No              |
| Signs and Symptoms of Exposure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                  |                 |
| <p>Cashew Resins — skin eruptions similar in appearance to poison ivy. Pneumoconiosis — coughing, wheezing, shortness of breath, impaired pulmonary function. Copper may produce metallic taste in mouth and nausea. Small amounts of ingested copper induces vomiting. Dusts in eye may cause irritation. Gastrointestinal disturbances possible from ingestion.</p>                                                                                                                                                                                                                                                                                                                   |                 |                  |                 |
| Medical Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |                 |
| Generally Aggravated by Exposure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |                  |                 |
| Copper exposure and Wilson's Disease                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                  |                 |
| Emergency and First Aid Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |                 |
| Should not be necessary from the handling of this product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                  |                 |

### SECTION VII - Precautions for Safe Handling and Use

#### Steps to Be Taken in Case Material is Released or Spilled

Grinding, drilling, milling, etc. can result in the release of airborne dust. Measures as outlined in Section VIII should be followed if this occurs.

#### Waste Disposal Method

Asbestos: Per 40 CFR, Part 61, 29 CFR, Part 1910.1001.

Other Hazardous Ingredients: Per 40 CFR, Part 261, 262 and applicable State and Local regulations.

#### Other Precautions

Pre-employment screening for allergies and histories of skin sensitivities may be beneficial in determining persons sensitive to cashew materials.

### SECTION VIII - Control Measures

Respiratory Protection (Specify Type) NIOSH approved for pneumoconiosis - fibrosis producing dusts and dusts with TLV not less than 0.05 mg/M<sup>3</sup>.

#### Ventilation

Local Exhaust For dust exposures exceeding TLV.

Mechanical (General) Not recommended for dust exposures.

Special NK

Other Barrier creams for persons with skin sensitive to cashew resins.

#### Protective Gloves

Recommended for persons with skin sensitive to cashew resins.

#### Eye Protection

Should not be needed for normal handling of product. Eye protection is good practice where dust is propelled by grinding or drilling activities.

#### Other Protective Clothing or Equipment

Long sleeved shirts or other protective clothing may be beneficial to prevent skin contact of persons sensitive to cashew resins.

#### Work/Hygienic Practices

Employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from this product is produced, unnecessary exposures should be avoided by using a vacuum in place of dry brooming. Use wet method of cleaning for other surfaces. Proper and adequate personal hygiene should be practiced by exposed workers.

NA - Not Available

NK - Not Known

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OF CANADA LIMITED

# MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910, 1200.  
Standard must be consulted for specific requirements.

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## IDENTITY (As Used on Label and List)

931-66, 83, 162&162A), 987-6, 3027-(73.85&88), 303-67, 3041-29, ABEX (647GG, 697EE, 685FF, 6009FF, 6000GG, 6008FF, 6014FF, 6011FF), ABB (281GG, 294EE, 282FF, 296GG, 2003FF, 2010FF, 2007FF, 2005FF), COM (371GG, 383EE, 372FF, 395FF, 385GG, 392FF, 3000FF, 397FF)

## SECTION I

|                                                                                                                                                                                                          |                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>Manufacturer's Name: ABEX CORPORATION</b><br>Friction Products Division<br><br><b>Address: (Number, Street, City, State, Zip Code)</b><br>2410 Papermill Road, P.O. Box 3250<br>Winchester, VA. 22601 | <b>Emergency Telephone Number</b> (703) 662-3842       |
|                                                                                                                                                                                                          | <b>Telephone Number for Information</b> (703) 662-3871 |
|                                                                                                                                                                                                          | <b>Date Prepared</b> November 12, 1985                 |
|                                                                                                                                                                                                          | <b>Preparer</b> M. K. Leung                            |

## SECTION II - Hazardous Ingredients/Identity Information

| Hazardous Components<br>(Specific Chemical Identity: Common Name(s)) | OSHA                   | PEL | ACGIH                  | TLV |
|----------------------------------------------------------------------|------------------------|-----|------------------------|-----|
| Glass Fiber                                                          | 10.0 mg/M <sup>3</sup> |     | 10.0 mg/M <sup>3</sup> |     |
| Silica, Silicate, Tripoli, Talc                                      | 0.1 mg/M <sup>3</sup>  |     | 0.1 mg/M <sup>3</sup>  |     |
| Carbon Black, Graphite, Coal, Coke                                   | 2.0 mg/M <sup>3</sup>  |     | 2.0 mg/M <sup>3</sup>  |     |
| Phenolic and Cashew Compounds                                        | 5.0 mg/M <sup>3</sup>  |     | 5.0 mg/M <sup>3</sup>  |     |
| Wood Flour and Other Fillers                                         | 1.0 mg/M <sup>3</sup>  |     | 1.0 mg/M <sup>3</sup>  |     |
| Iron, Zinc, Aluminum, Brass and their Oxides                         | 10.0 mg/M <sup>3</sup> |     | 10.0 mg/M <sup>3</sup> |     |

## SECTION III - Physical / Chemical Characteristics

|                                                         |    |                                              |           |
|---------------------------------------------------------|----|----------------------------------------------|-----------|
| <b>Boiling Point</b>                                    | NA | <b>Specific Gravity (H<sub>2</sub>O - 1)</b> | 1.5 - 3.5 |
| <b>Vapor Pressure (mm Hg.)</b>                          | NA | <b>Melting Point</b>                         | NA        |
| <b>Vapor Density (Air - 1)</b>                          | NA | <b>Evaporation Rate (Butyl Acetate - 1)</b>  | 0         |
| <b>Solubility in Water</b> No                           |    |                                              |           |
| <b>Appearance and Odor</b> Solid, Odor, Dark Grey Color |    |                                              |           |

| SECTION IV - Fire and Explosion Hazard Data |                           |                  |            |
|---------------------------------------------|---------------------------|------------------|------------|
| Flash Point (Method Used)                   | NA                        | Flammable Limits | NA LEL UEL |
| Extinguishing Media                         | Water, (Class A, B, or C) |                  |            |
| Special Fire Fighting Procedures            | NK                        |                  |            |
| Unusual Fire and Explosion Hazards          |                           |                  |            |
| NK                                          |                           |                  |            |

| SECTION V - Reactivity Data           |                                                                |   |                     |
|---------------------------------------|----------------------------------------------------------------|---|---------------------|
| Stability                             | Unstable                                                       |   | Conditions to Avoid |
|                                       | Stable                                                         | X | NK                  |
| Incompatibility (Materials to Avoid)  | NK                                                             |   |                     |
| Hazardous Decomposition or Byproducts | Incomplete combustion will create carbon monoxide and dioxide. |   |                     |
| Hazardous Polymerization              | May Occur                                                      |   | Conditions to Avoid |
|                                       | Will Not Occur                                                 | X | NK                  |

| SECTION VI - Health Hazard Data                                                                                                                                                                                                                                                                                                                                                                                                     |             |                  |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|-----------------|
| Route(s) of Entry:                                                                                                                                                                                                                                                                                                                                                                                                                  | Inhalation? | Skin?            | Ingestion?      |
| <b>Health Hazards (Acute and Chronic)</b><br><p>Some persons may be sensitive to cashew resins and develop dermatitis-type problems. Dust of glass fiber, silica, talc, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Metal dusts can be irritants of the eyes and upper respiratory system. There is little evidence of chronic industrial poisoning from iron, aluminum, and zinc dusts.</p> |             |                  |                 |
| Carcinogenicity:                                                                                                                                                                                                                                                                                                                                                                                                                    | NTP?        | IARC Monographs? | OSHA Regulated? |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | —           | —                | No              |
| <b>Signs and Symptoms of Exposure</b><br><p>Cashew Resins — skin eruptions similar in appearance to poison ivy. Pneumoconiosis — coughing, wheezing, shortness of breath, impaired pulmonary function. Dusts in eye may cause irritation. Gastrointestinal disturbances possible from ingestion. Glass fiber may create transient mechanical irritation of the skin of some persons.</p>                                            |             |                  |                 |
| <b>Medical Conditions</b><br>Generally Aggravated by Exposure NK                                                                                                                                                                                                                                                                                                                                                                    |             |                  |                 |
| <b>Emergency and First Aid Procedures</b><br><p>Should not be necessary from reasonable handling of this product.</p>                                                                                                                                                                                                                                                                                                               |             |                  |                 |

## SECTION VII - Precautions for Safe Handling and Use

## Steps to Be Taken in Case Material is Released or Spilled

Grinding, drilling, milling, etc. can result in the release of airborne dust. Measures as outlined in Section VIII should be followed if this occurs.

## Waste Disposal Method

Hazardous ingredients: 40 CFR, Part 261, 262 and applicable State and Local regulations.

## Other Precautions

Pre-employment screening for allergies and histories of skin sensitivities may be beneficial in determining persons sensitive to cashew materials.

## SECTION VIII - Control Measures

Respiratory Protection (Specify Type) NIOSH approved for pneumoconiosis - fibrosis producing dusts and dusts with TLV not less than 0.05 mg/M<sup>3</sup>.

## Ventilation

Local Exhaust For dust exposures exceeding TLV.

Mechanical (General) Not recommended for dust exposures.

Special NK

Other Barrier creams for persons with skin sensitive to cashew resins and fiber glass.

## Protective Gloves

Recommended.

## Eye Protection

Should not be needed for normal handling of product. Eye protection is good practice where dust is propelled by grinding or drilling activities.

## Other Protective Clothing or Equipment

Long sleeved shirts or other protective clothing may be beneficial to prevent skin contact of persons sensitive to cashew resins and fiber glass.

## Work/Hygienic Practices

Employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from this product is produced, unnecessary exposures should be avoided by using a vacuum in place of dry brooming. Use wet method of cleaning for other surfaces. Proper and adequate personal hygiene should be practiced by exposed workers.

NA - Not Available

NK - Not Known

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## MATERIAL SAFETY DATA SHEET

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Abex shall in no event be responsible for any damages of whatever nature directly or indirectly resulting from the publication or use of or reliance upon data contained herein. No express or implied warranty of any kind, including warranties of merchantability or fitness for use, with respect to the product or to the data herein is made hereunder.

### IDENTITY (As Used on Label and List)

38-27E, 83-2, 261-1&2, 337-1, 435-(4, 6&7), 606-2, 693-386, 504, ABEX (615GF, 656FF, 667FF, 661FF, 662FF, 628GG, 658FE, 655FF), ABB (215GF, 249FF, 250FF, 272FF, 268FF, 269FF, 219GG, 253FE), COM (313GF, 361FF, 362FF, 346FF, 394FE, 343FF, 344FF, 317GG)

### SECTION I

|                                                                                                                 |                                  |                   |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------|
| Manufacturer's Name: <b>ABEX CORPORATION</b><br>Friction Products Division                                      | Emergency Telephone Number       | (703) 662-3842    |
|                                                                                                                 | Telephone Number for Information | (703) 662-3871    |
| Address: (Number, Street, City, State, Zip Code)<br>2410 Papermill Road, P.O. Box 3250<br>Winchester, VA. 22601 | Date Prepared                    | November 12, 1985 |
|                                                                                                                 | Preparer                         | M. K. Leung       |

### SECTION II - Hazardous Ingredients/Identity Information

| Hazardous Components<br>(Specific Chemical Identity: Common Name(s)) | OSHA                   | PEL | ACGIH                  | TLV |
|----------------------------------------------------------------------|------------------------|-----|------------------------|-----|
| Asbestos (Crysotile), Talc                                           | 2 fibers/c.c.          |     | 2 fibers/c.c.          |     |
| Silica, Silicates, Tripoli                                           | 0.1 mg/M <sup>3</sup>  |     | 0.1 mg/M <sup>3</sup>  |     |
| Carbon Black, Graphite, Coal, Coke                                   | 2.0 mg/M <sup>3</sup>  |     | 2.0 mg/M <sup>3</sup>  |     |
| Phenolic and Cashew Compounds                                        | 5.0 mg/M <sup>3</sup>  |     | 5.0 mg/M <sup>3</sup>  |     |
| Wood Flour and Other Fillers                                         | 1.0 mg/M <sup>3</sup>  |     | 1.0 mg/M <sup>3</sup>  |     |
| Iron, Zinc, Aluminum, Brass, and their Oxides                        | 10.0 mg/M <sup>3</sup> |     | 10.0 mg/M <sup>3</sup> |     |
| Lead and its Compounds                                               | 0.05 mg/M <sup>3</sup> |     | 0.15 mg/M <sup>3</sup> |     |

### SECTION III - Physical / Chemical Characteristics

|                         |                                           |                                         |           |
|-------------------------|-------------------------------------------|-----------------------------------------|-----------|
| Boiling Point           | NA                                        | Specific Gravity (H <sub>2</sub> O - 1) | 1.6 - 2.8 |
| Vapor Pressure (mm Hg.) | NA                                        | Melting Point                           | NA        |
| Vapor Density (Air - 1) | NA                                        | Evaporation Rate<br>(Butyl Acetate - 1) | 0         |
| Solubility in Water     | No                                        |                                         |           |
| Appearance and Odor     | Solid, Odor, Light Tan to Dark Grey Color |                                         |           |

## SECTION IV - Fire and Explosion Hazard Data

|                                    |                           |                  |    |     |     |
|------------------------------------|---------------------------|------------------|----|-----|-----|
| Flash Point (Method Used)          | NA                        | Flammable Limits | NA | LEL | UEL |
| Extinguishing Media                | Water, (Class A, B, or C) |                  |    |     |     |
| Special Fire Fighting Procedures   | NK                        |                  |    |     |     |
| Unusual Fire and Explosion Hazards | NK                        |                  |    |     |     |

## SECTION V - Reactivity Data

|                                       |                                                                |   |                     |    |
|---------------------------------------|----------------------------------------------------------------|---|---------------------|----|
| Stability                             | Unstable                                                       |   | Conditions to Avoid | NK |
|                                       | Stable                                                         | X |                     |    |
| Incompatibility (Materials to Avoid)  | NK                                                             |   |                     |    |
| Hazardous Decomposition or Byproducts | Incomplete combustion will create carbon monoxide and dioxide. |   |                     |    |
| Hazardous Polymerization              | May Occur                                                      |   | Conditions to Avoid | NK |
|                                       | Will Not Occur                                                 | X |                     |    |

## SECTION VI - Health Hazard Data

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                         |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------|-----------------------|
| Route(s) of Entry:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Inhalation? Yes | Skin? Yes               | Ingestion? Yes        |
| <b>Health Hazards (Acute and Chronic)</b><br><br>Some persons may be sensitive to cashew resins and develop dermatitis-type problems. Dust of asbestos, silica, talc, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Metal dusts can be irritants of the eyes and upper respiratory system. There is little evidence of chronic industrial poisoning from iron, aluminum, and zinc dust. Chronic exposure to lead can affect kidneys, blood, gums, gastrointestinal system, and central nervous system. |                 |                         |                       |
| Carcinogenicity:<br>Asbestos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NTP?<br>Yes     | IARC Monographs?<br>Yes | OSHA Regulated?<br>No |
| <b>Signs and Symptoms of Exposure</b><br><br>Cashew resin - skin eruptions, similar in appearance to poison ivy. Pneumoconiosis - coughing, wheezing, shortness of breath, impaired pulmonary function. Dusts in eye may cause irritation. Gastrointestinal disturbances possible from ingestion. Lead may decrease physical fitness, cause fatigue, sleep disturbance, headache, aching bones and muscles, abdominal pain and decreased appetite and progressive to more severe symptoms.                                                  |                 |                         |                       |
| <b>Medical Conditions</b><br>Generally Aggravated by Exposure<br>NK                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                         |                       |
| <b>Emergency and First Aid Procedures</b><br><br>Should not be necessary from reasonable handling of this product.                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |                       |

### SECTION VII - Precautions for Safe Handling and Use

#### Steps to Be Taken in Case Material is Released or Spilled

Grinding, drilling, milling, etc. can result in the release of airborne dust. Measures as outlined in Section VIII should be followed if this occurs.

#### Waste Disposal Method

Asbestos per 40 CFR, Part 61, 29 CFR, Part 1910.1001

Other Hazardous Ingredients per 40 CFR, Part 261, 262 and applicable State and Local regulations.

#### Other Precautions

Specific requirements are covered per OSHA 29 CFR 1910.1025

Pre-employment screening for allergies and histories of skin sensitivities may be beneficial in determining persons sensitive to cashew materials.

### SECTION VIII - Control Measures

**Respiratory Protection (Specify Type)** NIOSH approved for pneumoconiosis - fibrosis producing dusts and dusts with TLV not less than 0.05 mg/M<sup>3</sup>.

#### Ventilation

**Local Exhaust** Recommended for dust sources.

**Mechanical (General)** Not recommended for dust control.

**Special** NK

**Other** Barrier creams for persons with skin sensitive to cashew resins.

#### Protective Gloves

Recommended where skin contact with lead and cashew resins.

#### Eye Protection

Should not be needed for normal handling of product. Eye protection is good practice where dust is propelled by grinding or drilling activities.

#### Other Protective Clothing or Equipment

Recommended in dusty atmosphere. This may be required under the OSHA lead standard depending upon exposure levels.

#### Work/Hygienic Practices

Employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from this product is produced, unnecessary exposures should be avoided by using a vacuum in place of dry brooming. Use wet method of cleaning for other surfaces. Proper and adequate personal hygiene should be practiced by exposed workers.

NA - Not Available

NK - Not Known

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ROCKWELL INTERNATIONAL  
OF CANADA LIMITED

# ROCKWELL MEMBERSHIP

| ORGANIZATION                              | CONTACT         | PHONE        | REGION    |
|-------------------------------------------|-----------------|--------------|-----------|
| TEXAS MOTOR TRANSPORTATION<br>ASSOCIATION | KELLY WILSON    | 512/478-2541 | WESTERN   |
| TRUCK RENTING AND LEASING<br>ASSOCIATION  | BEVERLEY WALKER | 202/347-2372 |           |
| TRUCK TRAILERS MANUFACTURERS              | CHARLES CALVIN  | 703/549-3010 | SOUTHEAST |
| VIRGINIA HIGHWAY USERS<br>ASSOCIATION     | MARY WORREL     | 804/649-9311 | SOUTHEAST |
| WASHINGTON TRUCKING ASSOC.                | PATTY HILES     | 206/682-0250 | WESTERN   |
| WEST VIRGINIA MOTOR<br>TRUCK ASSOCIATION  | JIM WALLEN      | 304/345-2800 | SOUTHWEST |
| WISCONSIN MOTOR CARRIERS<br>ASSOCIATION   | MIKE DEHAAN     | 608/255-6789 | MIDWEST   |
| WYOMING TRUCKING ASSOC.                   | SHENA FOERTSCH  | 307/234-1579 | WESTERN   |

RD 00442

## CORPORATE MEMBERSHIPS

American Council for Coordinated Action  
Washington, D.C.  
American Council on Education - Business-Higher Education Forum  
Washington, D.C.  
American Council on Science & Health  
New York City & Washington, D.C.  
American League for Exports & Security Assistance  
Washington, D.C.  
American Management Association  
New York City  
American/Saudi Business Roundtable  
New York City  
American Security Council  
Washington, D.C.  
Atlantic Institute for International Affairs  
Paris, France  
Better Business Bureau of W. Pennsylvania  
Pittsburgh, PA  
Business Council  
Washington, D.C.  
Business Council of Pennsylvania  
Harrisburg, PA  
Business-Industry Political Action Committee Educational Fund  
Washington, D.C.  
Business Roundtable  
New York City  
Chamber of Commerce - Inglewood Area  
Inglewood, CA  
Pennsylvania Chamber of Commerce  
Harrisburg, PA  
Greater Pittsburgh Chamber of Commerce  
Pittsburgh, PA  
Chamber of Commerce of the United States  
Washington, D.C.  
Citizen's Choice  
Washington, D.C.  
Civil Air Patrol  
Maxwell Air Force Base, Alabama  
Coalition for Uniform Product Liability Law  
Washington, D.C.  
Committee for Effective Capital Recovery  
Washington, D.C.  
Conference Board  
New York City  
Council of the Americas  
New York City  
Council of Better Business Bureaus  
Arlington, VA  
Council on Foundations  
Washington, D.C.  
El Segundo Employers Association  
El Segundo, CA  
Explorers Club  
New York City

Foreign Policy Association  
New York City  
International Management and Development Institute  
Washington, D.C.  
National Association of Manufacturers  
Washington, D.C.  
National Aviation Hall of Fame  
Dayton, OH  
National Center for Export-Import Studies  
Georgetown University  
Washington, D.C.  
National Council for U.S.-China Trade  
Washington, D.C.  
Newcomen Society of the United States  
Exton, PA  
Ohio Public Expenditure Council  
Columbus, OH  
Pennsylvanians for Effective Government  
Harrisburg, PA  
Pittsburgh Convention & Visitors Bureau  
Pittsburgh, PA  
Society of Experimental Test Pilots  
Lancaster, PA  
Stockholders of America, Inc.  
Washington, D.C.  
Tailhook Association  
Cornorado, CA  
Tax Foundation  
New York City and Washington, D.C.  
Town Hall of California  
Los Angeles, CA  
U.S.-Arab Chamber of Commerce  
New York City  
U.S. Council for International Business  
New York City  
U.S.-Korea Society Inc.  
New York City  
U.S. Business and Industrial Council  
Nashville, TN & Washington, D.C.  
World Affairs Council of Pittsburgh  
Pittsburgh, PA

Prepared 1/2/85

Rockwell Brakes  
Trade Organizations

PENGAD-Bayonne, N.J.  
DEPOSITION  
EXHIBIT  
9

RD 00439

# ROCKWELL MEMBERSHIP

| ORGANIZATION                                     | CONTACT           | PHONE         | REGION    |
|--------------------------------------------------|-------------------|---------------|-----------|
| ALABAMA TRUCKING ASSOCIATION                     | ROBERT LIGGETT    | 205/834-3983  | SOUTHWEST |
| ALASKA TRUCKING ASSOCIATION                      | T.J. THRASHER     | 907/276-1149  | WESTERN   |
| ALBERTA TRUCKING ASSOCIATION                     | JOHN ATTRELL      | 403/468-3195  | CANADIAN  |
| AMERICAN BUS ASSOCIATION                         | LORRAIN PERRY     | 202/293-5890  | NORTHEAST |
| AMERICAN MOVERS CONFERENCE                       | LESLIE FRANK      | 703/838-2800  | SOUTHEAST |
| AMERICAN SOCIETY FOR TESTING<br>AND MATERIALS    |                   | 215/299-5400  |           |
| AMERICAN TRUCK HISTORICAL SOCIETY                | PAT DATKA         | 205/879-2131  | SOUTHEAST |
| AMERICAN TRUCKING ASSOCIATION                    | TOM FUGEE         | 703/838-1750  | SOUTHEAST |
| AMERICAN TRUCKING MARKETING                      | CARL              | 714/889-1167  | WESTERN   |
| ARIZONA MOTOR TRANSPORT ASSOC.                   | TERRY SMALLY      | 602/252-7559  | WESTERN   |
| ARKANSAS MOTOR ASSOCIATION                       | JOHN CORBETT      | 501/372-3462  | SOUTHWEST |
| ASSERTT                                          | TOM CALLAGHAN     | 202/737-4610  |           |
| ATLANTIC PROVINCES TRUCKING ASSOC.               | DALE ELLIOT       | 506/386-4413  | CANADIAN  |
| AUTOMOTIVE PARTS MANUF.<br>ASSOCIATION OF CANADA | 416/366-9673      | MORLEY BURSEY | CANADIAN  |
| CALIFORNIA TRUCKING ASSOC.                       | JIM ROBBINS       | 916/329-3500  | WESTERN   |
| CANADIAN ASSOC. OF FLEET SUPER.                  | MARGE DUMAIS      | 404/522-2117  | CANADIAN  |
| CANADIAN TRUCKING ASSOCIATION                    | MR. KULZICKI      | 613/236-9426  | CANADIAN  |
| CANADIAN URBAN TRANSIT ASSOC.                    | MICHELLE O'BRIGHT | 416/365-9800  | CANADIAN  |
| CATRALA OF NORTH CAROLINA                        | DIANE KERR        | 919/872-2224  | SOUTHEAST |
| CENTRAL OHIO FLEET                               | LARRY DONDREA     | 614/878-0957  | MIDWEST   |
| COLORADO MOTOR TRANSPORT<br>ASSOCIATION          | SHERRI ROBBINS    | 303/433-3375  | WESTERN   |
| COMMON CARRIERS CONFERENCE IREG.                 | BETH LINE         | 202/838-1950  | SOUTHEAST |
| CONSTRUCTION INDUSTRY MANUF.                     | GEORGE HETRICK    | 414/272-0943  | MIDWEST   |
| FARM AND INDUSTRIAL EQUIP.<br>INSTITUTE          | MR. EBBINGHAUSE   | 312/321-1470  | MIDWEST   |
| FLORIDA TRUCKING ASSOCIATION                     | TOM WEBB          | 904/222-9900  | SOUTHEAST |
| GEORGIA MOTOR TRUCKING ASSOC.                    | BOB WILDER        | 404/876-4313  | SOUTHEAST |
| HAWAII TRANSPORTATION ASSOC.                     | FIN DEISEN        | 808/833-6628  | WESTERN   |
| HEAVY DUTY DISTRIBUTION DIVISION                 | BOB SCHUTTE       | 312/836-9500  | MIDWEST   |
| HEAVY DUTY MANUFACTURER'S ASSOC.                 | JOHN TRAPP        | 201/836-9500  | NORTHEAST |
| IDAHO MOTOR TRANSPORTATION                       | PARK GARRARD      | 208/342-3521  | WESTERN   |
| ILLINOIS TRUCKING ASSOCIATION                    | RON ADAMS         | 312/246-7040  | MIDWEST   |
| INDIANA MOTOR TRUCK<br>ASSOCIATION               | MRS. BROWN        | 317/244-7851  | MIDWEST   |
| INTERSTATE CARRIERS CONFERENCE                   | JOAN LATOUSH      | 202/838-1950  | SOUTHEAST |
| IOWA MOTOR TRUCK ASSOC.                          | MARY ANN LEMAR    | 515/244-5193  | MIDWEST   |
| KANSAS MOTOR CARRIERS<br>ASSOCIATION             | MARY TURKINGTON   | 913/267-1641  | SOUTHWEST |
| KENTUCKY MOTOR TRANSPORT<br>ASSOCIATION          | O.B. ARNOLD       | 502/223-0686  | SOUTHEAST |

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# ROCKWELL MEMBERSHIP

| ORGANIZATION                                     | CONTACT             | PHONE        | REGION    |
|--------------------------------------------------|---------------------|--------------|-----------|
| LOUISIANA MOTOR TRANSPORT                        | JOHN HIGHTOWER      | 504/928-5682 | SOUTHWEST |
| MAINE MOTOR TRANSPORTATION                       | CLIFF GREY          | 207/623-4128 | NORTHEAST |
| MAINTENANCE COUNCIL                              | BILL TRACY          | 703/838-1763 | SOUTHEAST |
| MAINTENANCE COUNCIL OF MTASC                     | RONNIE DAVENPORT    | 803/276-2031 | SOUTHEAST |
| MAINTENANCE COUNCIL OF NCTA                      | TED MANNING         | 704/373-1933 | SOUTHEAST |
| MANITOBA TRUCKING ASSOCIATION                    | BOB WILKES          | 204/632-6400 | CANADIAN  |
| MARYLAND MOTOR TRUCK ASSOCIATION                 | MAGGIE HOPKINS      | 301/644-4600 | NORTHEAST |
| MICHIGAN TRUCKING ASSOCIATION                    | PAT TURNER          | 517/393-0253 | MIDWEST   |
| MINNESOTA MOTOR TRANSPORT                        | MR. UBE             | 612/646-7351 | MIDWEST   |
| MISSISSIPPI TRUCKING ASSOC.                      | BETTY LOSTON        | 601/354-0616 | SOUTHWEST |
| MISSOURI BUS AND TRUCK ASSOC.                    | WILMA JAMES         | 314/634-3388 | SOUTHWEST |
| MONTANA MOTOR CARRIERS ASSOC.                    | AGNES PALMER        | 406/442-6400 | WESTERN   |
| MOTOR TRANSPORTATION ASSOC.<br>OF SOUTH CAROLINA | HARRIET DERRICK     | 803/799-4304 | SOUTHEAST |
| NATIONAL COUNCIL OF<br>INDEPENDENT TRUCKERS      | NANCY BOYLE         | 217/525-0310 | MIDWEST   |
| NATIONAL SAFETY COUNCIL                          | T.C. GILCHREST      | 312/527-4800 | MIDWEST   |
| NEBRASKA MOTOR CARRIERS<br>ASSOCIATION           | SANDY BERGMANN      | 402/476-8504 | MIDWEST   |
| NEVADA MOTOR TRANSPORT<br>ASSOCIATION            | PAULINE KIEF        | 702/331-6884 | WESTERN   |
| NORTH CAROLINA MOTOR<br>CARRIERS ASSOCIATION     | ELIZABETH BAILEY    | 919/834-0387 | SOUTHEAST |
| NORTH DAKOTA MOTOR CARRIERS<br>ASSOCIATION       | KAREN DAVENPORT     | 701/223-2700 | MIDWEST   |
| OHIO TRUCKING ASSOCIATION                        | DAVE BARTOSIK       | 614/221-5375 | MIDWEST   |
| OIL FIELD HAULERS ASSOCIATION                    | LES FINDERSON       | 512/476-5326 | SOUTHWEST |
| ONTARIO TRUCKING ASSOCIATION                     | JUDY BENNET         | 416/249-7401 | CANADIAN  |
| OREGON TRUCKING ASSOCIATION                      | ARLENE SIMS         | 503/233-7673 | WESTERN   |
| PENNSYLVANIA MOTOR TRUCK ASSOC.                  | BILL YOCUM          | 717/761-7122 | NORTHEAST |
| PRIVATE TRUCK COUNCIL<br>OF AMERICA              | JENNIFER BUTLER     | 202/785-4900 | NORTHEAST |
| REGIONAL AND DISTRIBUTION<br>CARRIERS CONFERENCE | WARREN WIEDHAIN     | 703/838-1990 | SOUTHEAST |
| SALES AND MARKETING<br>COUNCIL                   | MAGGIE O'CONNOR     | 202/838-1926 | SOUTHEAST |
| SASKATCHEWAN TRUCKING ASSOC.                     | JACK WALSH          | 306/569-9696 | CANADIAN  |
| SOUTH DAKOTA TRUCKING<br>ASSOCIATION             | DAVE LARSON         | 605/334-8871 | MIDWEST   |
| TENNESSEE MOTOR TRANSPORT<br>ASSOCIATION         | CATHERINE COUTURIER | 615/255-0558 | SOUTHEAST |

RD 00441

12:12  
From Rob Faller  
510.465.4728

1 David Booth Beers, State Bar No. 030799  
2 Dana J. Martin, State Bar No. 159860  
3 Shea & Gardner  
4 1800 Massachusetts Avenue, N.W.  
5 Washington, D.C. 20036  
6 (202) 828-2000  
7  
8 Attorneys for Defendant  
9 Rockwell International Corporation  
10  
11  
12  
13  
14

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DEC - 5 1994

15 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
16 IN AND FOR THE COUNTY OF ALAMEDA  
17  
18

19  
20 MARIE CADEI, ET AL.,  
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31 )  
32 )

Plaintiff,

v.

OWENS-CORNING FIBERGLAS  
CORP., ET AL.,  
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Defendants.

No. 739867-2

DEFENDANT ROCKWELL'S  
RESPONSES TO PLAINTIFFS'  
FIRST SET OF STANDARD  
INTERROGATORIES

Propounding Party: Plaintiffs

Responding Party: Defendant Rockwell International Corporation

Set: Plaintiffs' First Set of Standard Interrogatories  
(Dated December 16, 1988)

INTRODUCTION

Rockwell hereby submits its responses to plaintiffs' standard interrogatories, which were served upon Rockwell with the complaint in the above-captioned case. In answering these interrogatories, Rockwell has construed plaintiffs' inquiries regarding "asbestos-containing

DEPOSITION  
EXHIBIT  
10

1 products" to refer to asbestos-containing products  
2 contained in certain automotive brakes, brake assemblies,  
3 brake parts, or other brake equipment manufactured or  
4 otherwise supplied by Rockwell to which plaintiffs allege  
5 the decedent was exposed. Rockwell has taken this approach  
6 because it understands that plaintiffs' claims are based  
7 upon the decedent's alleged exposure to asbestos from  
8 working with certain automotive brake products.<sup>1/</sup> To the  
9 extent these interrogatories request information about  
10 products other than automotive brake products, therefore,  
11 Rockwell objects on the ground that information about such  
12 products would not be relevant to any issue in this case or  
13 be reasonably calculated to lead to the discovery of  
14 admissible evidence. Rockwell hereby incorporates this  
15 objection into each of its responses below.

16

---

17 <sup>1/</sup> Upon a telephone inquiry as to product identification  
18 in this case, counsel for Rockwell was informed by the  
19 office of plaintiffs' counsel that this is a "heavy-duty  
20 automotive brake" case. We have proceeded based upon that  
21 representation, which is consistent with decedent's work  
22 history as described in ¶ VIII of the first cause of action  
23 listed in plaintiffs' First Amended Complaint. Moreover,  
24 certain automotive brake products appear to be the only  
25 Rockwell products that plaintiffs allege could have been  
26 used in connection with the decedent's employment and could  
27 have contained asbestos. If, through discovery, plaintiffs  
28 develop some basis for contending that the decedent was  
29 exposed to asbestos contained in some other Rockwell  
30 product, Rockwell will conduct an investigation to determine  
31 whether the answers to these interrogatories should be  
32 supplemented.

1 INTERROGATORY NO. 1:

2  
3 State the IDENTITY of each person who has supplied  
4 information used in answering these interrogatories.

5  
6 ANSWER: The information used in answering these  
7 interrogatories was gathered over a number of years in  
8 connection with asbestos-related litigation against  
9 Rockwell in numerous courts, and was supplied by several  
10 present and former Rockwell employees, many of whom  
11 provided only limited information. Those employees who  
12 chiefly provided the information used were as follows:

| <u>Name/Dates</u>       | <u>Department</u> | <u>Rockwell Location</u> |
|-------------------------|-------------------|--------------------------|
| 13                      |                   |                          |
| 14 Ms. Barbara Boroughf | Safety            | Troy, Michigan           |
| 15 1978-present         |                   |                          |
| 16 Mr. Larry Bowman     | Engineering       | Troy, Michigan           |
| 17 1977-present         |                   |                          |
| 18 Mr. Gerry Danner     | Engineering       | Troy, Michigan           |
| 19 1975-present         |                   |                          |
| 20 Mr. James English    | Quality and       | Kenton, Ohio             |
| 21 1963-present         | Reliability       |                          |
| 22 Mr. James Ferguson   | Sales             | Kenton, Ohio             |
| 23 1971-present         |                   |                          |
| 24 Mr. Andy Hansen      | Quality           | Oshkosh, Wisc.           |
| 25 1968-present         | Control           |                          |
| 26 Mr. Glen Hottman     | Engineering       | Kenton, Ohio             |
| 27 1968-present         |                   |                          |
| 28 Mr. Ralph Johnson    | Sales             | York, S.C.               |
| 29 1968-present         |                   |                          |
| 30 Mr. Timothy Kephart  | Purchasing        | York, S.C.               |
| 31 1978-present         |                   |                          |
| 32 Mr. Bruce Ketcham    | Product           | Troy, Michigan           |
| 33 1978-present         | Analysis          |                          |
| 34 Mr. Rober Mathers    | Consultant        | Troy, Michigan           |
| 35 1969-93              |                   |                          |
| 36 Mr. Stephen McBride  | Sales             | Kenton, Ohio             |
| 37 1963-present         |                   |                          |
| 38 Mr. Sam Narayan      | Engineering       | Troy, Michigan           |
| 39 1967-present         |                   |                          |
| 40 Mr. Jerry Rush       | Safety            | Troy, Michigan           |
| 41 1977-present         |                   |                          |
| 42                      |                   |                          |
| 43                      |                   |                          |
| 44                      |                   |                          |
| 45                      |                   |                          |

1 INTERROGATORY NO. 2:

2  
3 State whether YOU are a corporation. If so, state:

- 4  
5 a. YOUR full corporate name;  
6 b. the state of incorporation;  
7 c. the date of incorporation;  
8 d. the address of YOUR principal place of business;  
9 e. if YOU are wholly-owned or if more than five (5)  
10 percent of the ownership interest of YOUR COMPANY is owned  
11 by another business entity, state that entity's name and  
12 principal place of business.

13  
14 ANSWER: Yes.

15 (a) Rockwell International Corporation.

16 (b) Delaware.

17 (c) 1973.

18 (d) 2201 Seal Beach Boulevard, Seal Beach,  
19 California 90470.

20 (e) Not applicable.

21

22 INTERROGATORY NO. 3:

23 Has THIS DEFENDANT ever been identified, known, or  
24 done business under any other name? If so, please state  
25 such name or names and the time period during which THIS  
26 DEFENDANT was so known or identified.

27  
28 ANSWER: Since at least 1935, Rockwell or its corporate  
29 predecessors-in-interest have purchased asbestos-containing  
30 brake linings from other manufacturers for re-sale  
31 throughout the United States and elsewhere in conjunction  
32 with medium and heavy-duty brakes and brake assemblies  
33 manufactured by Rockwell, chiefly as original equipment for  
34 certain commercial and military vehicles. To a lesser  
35 extent, Rockwell has also sold replacement brakes and brake

1 assemblies with purchased brake linings, and, in addition,  
2 Rockwell has sold small numbers of such purchased brake  
3 linings separately as replacement parts.

4 The companies in Rockwell's corporate history selling  
5 such brakes, brake assemblies, and brake parts have been:  
6 Timken-Detroit Axle, until late 1953 when it was  
7 consolidated into Rockwell Spring and Axle Co., which in  
8 April 1958 became Rockwell-Standard Corporation, which in  
9 turn was merged in September 1967 into North American  
10 Rockwell. In February 1973, this company was merged into  
11 Rockwell International Corporation, the brake operations of  
12 which have since been conducted by its Automotive Division  
13 with headquarters at 2135 West Maple Road, Troy, Michigan  
14 48084.

15

16 INTERROGATORY NO. 4:

17 State whether YOU have ever been registered or  
18 qualified to do business in the State of California. If  
19 so, state the date YOU became qualified to conduct business  
20 in the State of California.

21

22 ANSWER: Yes; July 27, 1935.

23

24 INTERROGATORY NO. 5:

25 Does THIS DEFENDANT currently have, or has THIS  
26 DEFENDANT had a department, division, subdivision, branch  
27 or group responsible for the design, development,  
28 manufacture, testing and use of ASBESTOS-CONTAINING  
29 PRODUCT(S). If so, state:

30

31 a. the name of each present or former corporate  
32 department, division, subdivision, branch or group;

1           b. the IDENTITY of the person most knowledgeable  
2 about such department, division, subdivision, branch or  
3 group.

4  
5 ANSWER: No; see answer to Interrogatory No. 3.

6  
7 INTERROGATORY NO. 6:

8           Has THIS DEFENDANT engaged in the MARKETing of  
9 ASBESTOS-CONTAINING PRODUCT(S) comprised in whole or in  
10 part of amosite asbestos fiber; if so, please state:

11  
12           a. the trade, brand name and/or generic name of each  
13 type of product;

14           b. the date(s) THIS DEFENDANT first MARKETed each  
15 type of product;

16           c. the date(s) THIS DEFENDANT ceased MARKETing each  
17 type of product;

18           d. a description of the chemical composition of each  
19 type of product, including:

20               (i) the type(s) and/or grade(s) of RAW ASBESTOS  
21 FIBER contained in each type of product;

22               (ii) the quantitative percentage of the type(s)  
23 of RAW ASBESTOS FIBER in each type of product;

24               (iii) any change(s) in the quantitative  
25 percentages of the type(s) of RAW ASBESTOS FIBER in each  
26 type of product;

27           e. the NATURE of each type of product;

28           f. a description of any wording, markings and/or logo  
29 on each type of product;

30           g. the recommended use(s) of each type of product,  
31 including temperature limits;

32           h. the name(s) of the manufacturer(s) of each type of  
33 product;

34           i. the name(s) and address(es) of the supplier(s) of  
35 the amosite asbestos fiber used in each type of product;

36           j. the IDENTITY of the person(s) most knowledgeable  
37 concerning the purchase of amosite asbestos fiber by THIS  
38 DEFENDANT.

39  
40 ANSWER: No.

41  
-42 INTERROGATORY NO. 7:

43           Has THIS DEFENDANT engaged in the MARKETing of amosite  
44 asbestos fiber; if so, please state:  
45

1 a. the name and location of each amosite asbestos  
2 mine which THIS DEFENDANT presently operates, has operated,  
3 or in which THIS DEFENDANT has or had an ownership  
4 interest, including the dates of such ownership, and the  
5 grade of amosite asbestos fiber mined;  
6 b. the date(s) THIS DEFENDANT first MARKETed amosite  
7 asbestos fiber;  
8 c. the date(s) THIS DEFENDANT ceased MARKETing  
9 amosite asbestos fiber;  
10 d. the grade(s) of such amosite asbestos fiber  
11 MARKETed by THIS DEFENDANT;  
12 e. the recommended use(s) of each grade of such  
13 amosite asbestos fiber, including any temperature limits;  
14 f. the name(s) and address(es) of the supplier(s) of  
15 amosite asbestos fiber to THIS DEFENDANT.

16  
17 ANSWER: No.

18  
19 INTERROGATORY NO. 8:

20 Has THIS DEFENDANT engaged in the MARKETing of  
21 ASBESTOS-CONTAINING PRODUCTS comprised in whole or in part  
22 of chrysotile asbestos fiber; if so, please state:

23  
24 a. the trade, brand name and/or generic name of each  
25 type of product;  
26 b. the date(s) this DEFENDANT first MARKETed each  
27 type of product;  
28 c. the date(s) this DEFENDANT ceased MARKETing each  
29 type of product;  
30 d. a description of the chemical composition of each  
31 type of product, including:  
32 (i) the type(s) and grade(s) of asbestos fiber  
33 contained in each type of product;  
34 (ii) the quantitative percentage of the types of  
35 asbestos fiber in each type of product;  
36 (iii) any change(s) in the quantitative  
37 percentages of the type(s) of asbestos fiber in each type  
38 of product;  
39 e. the NATURE of each type of product;  
40 f. a description of any wording, markings and/or logo  
41 on each type of product;  
42 g. the recommended use(s) of each type of product,  
43 including temperature limits;  
44 h. the name of the manufacturer of each type of  
45 product;  
46 i. the name(s) and address(es) of the supplier(s) of  
47 the chrysotile asbestos fiber used in each type of product;

1           j. the IDENTITY of the person(s) most knowledgeable  
2 concerning the purchase of chrysotile asbestos fiber by  
3 THIS DEFENDANT.

4  
5    ANSWER: (a)-(c), (e), (g) Rockwell has never mined, sold,  
6 or purchased raw asbestos fiber. Rockwell has never itself  
7 manufactured any asbestos-containing product. See answer  
8 to Interrogatory No. 3. Normally, asbestos-containing  
9 brake linings purchased by Rockwell are physically  
10 incorporated by Rockwell into its brakes and brake  
11 assemblies; but small numbers of such purchased brake  
12 linings are re-sold separately by Rockwell as replacement  
13 parts. Asbestos-containing brake linings purchased by  
14 Rockwell have come in solid, block-like form, and they are  
15 either grey or brown in color. In the 1980s, Rockwell  
16 gradually stopped manufacturing and selling brake  
17 assemblies with asbestos-containing linings for most  
18 automotive uses.

19           (d) Rockwell understands that all asbestos-containing  
20 linings used in its brakes have been made with chrysotile  
21 asbestos. Rockwell does not know the answer to the  
22 remainder of this interrogatory.

23           (f) Rockwell's name and/or corporate logo has  
24 appeared stamped on the undersides of brake shoes and on a  
25 plate attached to brake assemblies. Rockwell's name and/or  
26 corporate logo was printed in blue and white or black and  
27 white on cardboard boxes of replacement brake linings  
28 supplied by Rockwell. The brake linings that Rockwell has

1 purchased have not borne the names or trademarks of their  
2 manufacturers, but in some cases they have borne a letter  
3 code identifying the manufacturers, such as "ABE" (Abex),  
4 "MM" (Carlisle) and "RM" (Raybestos-Manhattan). In some  
5 instances, the lining manufacturers have stamped Rockwell's  
6 name and/or corporate insignia on the linings before  
7 shipment to Rockwell.

8 (h) Rockwell purchased brake linings from a number of  
9 different manufacturers from time to time, including Abex,  
10 Raymark, Bendix, Carlisle, Wagner, Johns-Manville,  
11 Maremont, Nuturn, S.K. Wellman, H.K. Porter, Gatke,  
12 Worldbestos, and possibly others, as well as predecessors  
13 and successors to these companies.

14 (i) Rockwell does not know the answer to this  
15 interrogatory.

16 (j) Not applicable.

17 INTERROGATORY NO. 9:

18 Has THIS DEFENDANT engaged in the MARKETing of  
19 chrysotile asbestos fiber; if so, please state:

20  
21 a. the name and location of each chrysotile asbestos  
22 mine which THIS DEFENDANT presently operates, has operated,  
23 or in which THIS DEFENDANT has or had an ownership  
24 interest, including the dates of such ownership, and the  
25 grade of chrysotile asbestos fiber mined;

26 b. the date(s) THIS DEFENDANT first MARKETed  
27 chrysotile asbestos fiber;

28 c. the date(s) THIS DEFENDANT ceased MARKETing  
29 chrysotile asbestos fiber;

30 d. the grade(s) of such chrysotile asbestos fiber  
31 MARKETed by THIS DEFENDANT;

32 e. the recommended use(s) of each grade of such  
33 chrysotile asbestos fiber, including temperature limits;

34 f. the name(s) and address(es) of the supplier(s) of  
35 chrysotile asbestos fiber to THIS DEFENDANT.

1     ANSWER:   No.

2

3     INTERROGATORY NO. 10:

4             Has THIS DEFENDANT engaged in the MARKETING of  
5 ASBESTOS-CONTAINING PRODUCTS comprised in whole or in part  
6 of crocidolite asbestos fiber; if so, please state:

7

8             a. the trade, brand name and/or generic name of each  
9 type of product;

10            b. the date(s) THIS DEFENDANT first MARKETed each  
11 type of product;

12            c. the date(s) THIS DEFENDANT ceased MARKETING each  
13 type of product;

14            d. a description of the chemical composition of each  
15 type of product, including:

16               (i) the type(s) and grade(s) of asbestos fiber  
17 contained in each type of product;

18               (ii) the quantitative percentage of the type(s)  
19 of fiber in each type of product;

20               (iii) any change(s) in the quantitative  
21 percentages of the type(s) of asbestos fiber in each type  
22 of product;

23            e. the NATURE of each type of product;

24            f. a description of any wording, markings and/or logo  
25 on each type of product;

26            g. the recommended use(s) of each type of product,  
27 including temperature limits;

28            h. the name of the manufacturer of each type of  
29 product;

30            i. the name(s) and address(es) of the supplier(s) of  
31 the crocidolite asbestos fiber used in each type of  
32 product;

33            j. the IDENTITY of the person(s) most knowledgeable  
34 concerning the purchase of crocidolite asbestos fiber by  
35 THIS DEFENDANT.

36

37     ANSWER:   No.

38

39     INTERROGATORY NO. 11:

40             Has THIS DEFENDANT engaged in the MARKETING of  
41 crocidolite asbestos fiber; if so, please state:

42

43             a. the name and location of each crocidolite asbestos  
44 mine which THIS DEFENDANT presently operates, has operated,  
45 in the, and/or in which THIS DEFENDANT has or had an

1 ownership interest, including the dates of such ownership,  
2 and the grade of asbestos fiber mined;  
3 b. the date(s) THIS DEFENDANT first MARKETed  
4 crocidolite asbestos fiber;  
5 c. the date(s) THIS DEFENDANT ceased MARKETing  
6 crocidolite asbestos fiber;  
7 d. the grade(s) of such crocidolite asbestos fiber  
8 MARKETed by THIS DEFENDANT;  
9 e. the recommended use(s) of each grade of such  
10 crocidolite asbestos fiber, including temperature limits;  
11 f. the name(s) and address(es) of the supplier(s) of  
12 crocidolite asbestos fiber to THIS DEFENDANT.  
13  
14

15 ANSWER: No.

16  
17 INTERROGATORY NO. 12:

18 Does or did THIS DEFENDANT own shares of stock or  
19 otherwise have an ownership interest in a COMPANY which  
20 MARKETed ASBESTOS-CONTAINING PRODUCT(S); if so, please  
21 state:  
22  
23 a. the name of such COMPANY;  
24 b. the date of incorporation of such COMPANY;  
25 c. the state of incorporation of such COMPANY;  
26 d. the date such interest was acquired;  
27 e. the date such interest changed or terminated, if  
28 applicable;  
29 f. the name and location of each facility of such  
30 COMPANY;  
31 g. the name of each type of ASBESTOS-CONTAINING  
32 PRODUCT(S) manufactured, processed and/or assembled by such  
33 COMPANY.  
34  
35

36 ANSWER: No. See answer to Interrogatory No. 3.  
37

38 INTERROGATORY NO. 13:

39 Did THIS DEFENDANT own any shares of stock or  
40 otherwise have an ownership interest in a COMPANY that  
41 MARKETed RAW ASBESTOS FIBER; if so, please state:  
42  
43 a. the name of such COMPANY;  
44 b. the date of incorporation or charter of such  
45 COMPANY;

- 1 c. the state or country of incorporation of such  
2 COMPANY;  
3 d. the date such interest was acquired;  
4 e. the dates such interest changed or terminated, if  
5 applicable;  
6 f. the name and location of each asbestos mine owned  
7 by such COMPANY;  
8 g. the grade and type of RAW ASBESTOS FIBER mined at  
9 each mine.

10  
11  
12 ANSWER: No.

13  
14 INTERROGATORY NO. 14:

15 Has THIS DEFENDANT warehoused any RAW ASBESTOS FIBER  
16 or ASBESTOS-CONTAINING PRODUCT(S) in the State of  
17 California; if so, please state:

- 18  
19 a. the address of each warehouse facility;  
20 b. the year(s) THIS DEFENDANT utilized each facility;  
21 c. the IDENTITY of the custodian of warehousing  
22 records.

23  
24 ANSWER: No.

25  
26 INTERROGATORY NO. 15:

27 Has THIS DEFENDANT owned or operated facilities  
28 anywhere in the United States in which ASBESTOS-CONTAINING  
29 PRODUCT(S) have been manufactured, processed and/or  
30 assembled; if so, state:

- 31  
32 a. the dates said facilities have been in operation;  
33 b. the name of each type of ASBESTOS-CONTAINING  
34 PRODUCT manufactured, processed or assembled at each such  
35 facility;  
36 c. the address of each such facility, including city  
37 and state.

38  
39 ANSWER: Yes. Rockwell has supplied asbestos-containing  
40 brake linings from the following facilities:

41 Incorporated Into Brake Assemblies and Brake Parts

42 Ashtabula, Ohio (1948-87)  
43 Asheville, N.C. (1982-Present)

1 Battle Creek, Mich. (1974-'84)  
2 Detroit, Mich. (1909-74)  
3 Kenton, Ohio (1949-Present)  
4 Knox, Ind. (1964-82)  
5 Marysville, Ohio (1972-82)  
6 Newark, Ohio (1951-Present)  
7 New Castle, Pa. (1949-93)  
8 Oshkosh, Wis. (1919- Present)  
9 Pontiac, Mich. (1985-89)  
10 Tilbury, Ontario (1959-Present)  
11 Utica, N.Y. (1946-64)  
12 York, S.C. (1981-Present)  
13 Walled Lake, Mich. (1981-85)  
14 Winchester, Ky. (1966-92)  
15

16 Sold as Replacement Brake Parts  
17

18 Brampton, Ontario (1988-Present)  
19 Florence, Ky. (1976-Present)  
20 Hayward, Cal. (1977-86)  
21 Mississauga, Ontario (1982-88)  
22  
23

24 INTERROGATORY NO. 16:  
25

26 Has THIS DEFENDANT purchased or otherwise acquired any  
27 rights to the manufacture of ASBESTOS-CONTAINING PRODUCT(S)  
28 from another COMPANY? If so, state:  
29

- 30 a. the date of purchase or acquisition of such  
31 rights;  
32 b. the trade, brand and/or generic name of such  
33 ASBESTOS-CONTAINING PRODUCT(S);  
34 c. the name and location of any COMPANY from which  
35 such rights were purchased or acquired;  
36 d. the IDENTITY of the custodian of records of such  
37 purchase(s) or acquisition(s).  
38

39 ANSWER: No.  
40

41 INTERROGATORY NO. 17:

42 Has THIS DEFENDANT applied for and/or received any  
43 patent(s) for any ASBESTOS-CONTAINING PRODUCT(S). If so,  
44 state for each such ASBESTOS CONTAINING PRODUCT:  
45

- 46 a. the product for which each patent was applied  
47 and/or issued;  
48 b. the date(s) of application;

1 c. the date(s) of issuance of the patent(s) if  
2 granted;  
3 d. the date(s) of renewal, if any;  
4 e. the patent number(s);  
5 f. the name of the individual or COMPANY to whom each  
6 patent was issued;  
7 g. the IDENTITY of the custodian of patent records of  
8 THIS DEFENDANT.  
9

10 ANSWER: No.

11  
12 INTERROGATORY NO. 18:

13 Has THIS DEFENDANT registered any trademark(s) for any  
14 ASBESTOS-CONTAINING PRODUCT(S); if so, state for each such  
15 ASBESTOS-CONTAINING PRODUCT:

16  
17 a. the product for which each trademark was  
18 registered;  
19 b. whether the registration was State or Federal;  
20 (i) if a State, name the State;  
21 c. date(s) of registration;  
22 d. the term(s) thereof;  
23 e. the date(s) of renewal;  
24 f. the name of the individual or COMPANY to whom each  
25 trademark was registered;  
26 g. the IDENTITY of the custodian of such trademark  
27 records of THIS DEFENDANT.  
28

29 ANSWER: No.

30  
31 INTERROGATORY NO. 19:

32 Did THIS DEFENDANT contract with the General Services  
33 Administration and/or other federal-government agency for  
34 the sale, anywhere in the United States, of RAW ASBESTOS  
35 FIBER; if so, state for each such sale:

36  
37 a. the grade(s) and type(s) of RAW ASBESTOS FIBER;  
38 b. the quantity;  
39 c. the date(s) of delivery;  
40 d. the location(s), including the address(es), of  
41 delivery;  
42 e. the name(s) of the agency with which THIS  
43 DEFENDANT contracted;  
44 f. the date(s) of execution of such contract(s);  
45 g. the IDENTITY of the custodian of such contract  
46 records of THIS DEFENDANT.

1     ANSWER: No.

2

3     INTERROGATORY NO. 20:

4             Did THIS DEFENDANT contract with the General Services  
5 Administration and/or other federal-government agency for  
6 the sale, anywhere in the United States, of ASBESTOS  
7 CONTAINING PRODUCT(S), please state for each such sale:

8

- 9             a. the type of product;  
10            b. the quantity;  
11            c. the date(s) of delivery;  
12            d. the location(s), including the address(es), of  
13 delivery;  
14            e. the name(s) of the agency with which THIS  
15 DEFENDANT contracted;  
16            f. the date(s) of execution of such contract(s);  
17            g. the IDENTITY of the custodian of such contract  
18 records of THIS DEFENDANT.

19

20     ANSWER: No.

21

22     INTERROGATORY NO. 21:

23             Does THIS DEFENDANT have any records of the MARKETing,  
24 advertisement, or delivery of its RAW ASBESTOS FIBER and/or  
25 ASBESTOS-CONTAINING PRODUCT(S) in or to NORTHERN  
26 CALIFORNIA? If so, state:

27

- 28             a. the manner in which the records are kept, (e.g.,  
29 in boxes, files, on microfilm, microfiche or computer tape  
30 or disk);  
31             b. the location(s) and address(es) where such records  
32 are maintained;  
33             c. the IDENTITY of the custodian of such records.

34

35     ANSWER: Rockwell's records of sales of its automotive

36 brake products have not been maintained on such a

37 geographical basis.

38

39     INTERROGATORY NO. 22:

40             If this defendant has in its possession any records of  
41 the MARKETing, advertisement, or delivery of its RAW

1 ASBESTOS FIBER and/or ASBESTOS-CONTAINING PRODUCTS  
2 (including microfilm, microfiche, computer tape or disk, or  
3 any other system in which data is taken from other  
4 records), state whether THIS DEFENDANT has retained the  
5 original DOCUMENTS from which the data entered into these  
6 modes of storage was obtained. If THIS DEFENDANT has not  
7 retained such original DOCUMENTS, state:

- 8  
9 a. the date(s) when and location(s) where the  
10 original DOCUMENTS were disposed of;  
11 b. the IDENTITY of the custodian of the original  
12 DOCUMENTS at the time of their disposal.

13  
14 ANSWER: Rockwell maintains originals of some documents  
15 reflecting sales of its brakes and brake parts that have  
16 also been reproduced in other forms, and such originals are  
17 maintained at the locations referred to in the answer to  
18 Interrogatory No. 15. Each such facility has a records  
19 custodian. Many original records, however, have been  
20 discarded in the ordinary course of business.

21

22 INTERROGATORY NO. 23:

23 Does THIS DEFENDANT have in its possession any  
24 exemplar(s) of advertisements or brochures describing its  
25 RAW ASBESTOS FIBER and/or ASBESTOS-CONTAINING PRODUCTS; if  
26 so, please state:

- 27  
28 a. the location of each exemplar;  
29 b. the year(s) in which said exemplar(s) was  
30 utilized;  
31 c. the IDENTITY of the custodian of such exemplars.

32  
33 ANSWER: Yes. The answer to the remainder of this  
34 interrogatory may be ascertained from copies of the  
35 relevant advertisements and brochures, which will be made  
36 available for inspection at the offices of Rockwell's  
37 National Coordinating Counsel, Shea & Gardner, 1800  
38 Massachusetts Avenue, N.W., Washington, D.C. 20036.

1     INTERROGATORY NO. 24:

2             State the following:

3

4             a. the address(es) where the corporate records of  
5 THIS DEFENDANT (including minutes from the Board of  
6 Directors meetings and corporation annual reports), are  
7 currently located;

8             b. the IDENTITY of the custodian of such records.

9

10    ANSWER:     Corporate records are stored at the various  
11 Rockwell plants identified above, as well as at Rockwell's  
12 corporate offices in Pittsburgh, Pennsylvania and Seal  
13 Beach, California, and at Rockwell's automotive division  
14 headquarters in Troy, Michigan. Each facility has its own  
15 records custodian.

16

17    INTERROGATORY NO. 25:

18             Describe the packaging or containers in which THIS  
19 DEFENDANT sold and/or distributed RAW ASBESTOS FIBER,  
20 including composition, dimension, shape and color.

21

22    ANSWER:     Not applicable.

23

24    INTERROGATORY NO. 26:

25             Describe any logo, design, marking or printing,  
26 including size and color, which appeared on the packaging  
27 or containers in which THIS DEFENDANT sold and/or  
28 distributed RAW ASBESTOS FIBER.

29

30    ANSWER:     Not applicable.

31

32    INTERROGATORY NO. 27:

33             Describe the packaging or containers in which THIS  
34 DEFENDANT sold and/or distributed ASBESTOS-CONTAINING  
35 PRODUCT(S), including composition, dimension, shape and  
36 color.

37

1     ANSWER: Rockwell's brake products with asbestos-containing  
2     linings have generally been shipped as follows: (1) brakes  
3     with axles: stacked and banded on wooden pallets; (2)  
4     stand-alone brake units: stacked and banded on wooden  
5     pallets and, in recent years, encased in plastic; (3)  
6     replacement linings and linings on shoes: cardboard boxes.

7

8     INTERROGATORY NO. 28:

9             Describe any logo, design, marking or printing,  
10     including size and color, which appeared on the packaging  
11     or containers in which THIS DEFENDANT sold and/or  
12     distributed ASBESTOS-CONTAINING PRODUCT(S).

13

14     ANSWER: See answers to Interrogatory Nos. 8(f) and 29.

15

16     INTERROGATORY NO. 29:

17             Does THIS DEFENDANT have any exemplars of packaging or  
18     containers in which its RAW ASBESTOS FIBER and/or ASBESTOS-  
19     CONTAINING PRODUCTS were sold and/or distributed. If so,  
20     state:

21

22             a. the location of each exemplar;

23             b. the year(s) in which said exemplar(s) was  
24     utilized;

25             c. the IDENTITY of the custodian of such exemplars.

26

27     ANSWER: Yes, insofar as this question relates to

28     packaging or containers currently in use. The answer to  
29     the remainder of this interrogatory may be ascertained from  
30     the exemplars themselves and related documents, which will  
31     be made available for inspection at the offices of Shea &  
32     Gardner.

33

34     INTERROGATORY NO. 30:

1 Did THIS DEFENDANT put warnings of asbestos-related  
2 health hazards on bags of RAW ASBESTOS FIBER; if so, please  
3 state:

4  
5 a. the wording of such warning(s), including size,  
6 location, and color;

7 b. whether the warning was put on a tag attached to  
8 the bags;

9 c. the date such warning(s) was first used;

10 d. whether any change was made in the wording of such  
11 warnings, the date(s) of such change, and the reasons for  
12 such change.

13  
14 ANSWER: Not applicable.

15  
16 INTERROGATORY NO. 31:

17 Did THIS DEFENDANT put warnings of asbestos-related  
18 health hazards on the packaging or containers of ASBESTOS-  
19 CONTAINING PRODUCT(S)? If so, please state:

20  
21 a. the wording of such warnings, including size,  
22 location on the packaging or containers, and color;

23 b. the date such warning(s) was first used;

24 c. whether any change was made in the wording of such  
25 warning(s), the date(s) of such change, and the reason(s)  
26 for such change.

27  
28 ANSWER: Yes.

29 Asbestos-containing brake linings: since the late  
30 1970s.

31 Brake equipment into which asbestos-containing  
32 brake linings were incorporated: since 1987.

33 The answer to the remainder of this interrogatory  
34 with regard to the form and content of warnings and  
35 instruction materials used on brake products may be  
36 ascertained from copies of the labels and related  
37 explanatory documents, which will be made available for  
38 inspection at the offices of Shea & Gardner.

1 INTERROGATORY NO. 32:

2  
3 Has THIS DEFENDANT distributed any brochures or  
4 pamphlets that contain warnings of any asbestos-related  
5 health hazards; if so, please state:

- 6  
7 a. the wording of such warning;  
8 b. the method used to distribute such brochures or  
9 pamphlets;  
10 c. the date(s) such brochures or pamphlets were first  
11 issued;  
12 d. whether THIS DEFENDANT has exemplars of such  
13 brochures or pamphlets;  
14 e. the IDENTITY of the custodian of such exemplars.

15  
16 ANSWER: Yes. The answer to the remainder of this  
17 interrogatory with regard to the form and content of  
18 warnings and instruction materials used with brake products  
19 may be ascertained from copies of the explanatory  
20 documents, including package inserts, field maintenance  
21 manuals, and material safety data sheets, which will be  
22 made available for inspection at the offices of Shea &  
23 Gardner.

24  
25 INTERROGATORY NO. 33:

26 Did THIS DEFENDANT warn its employees and/or CONTRACT  
27 UNIT(S), anywhere in the United States, that exposure to  
28 asbestos could be hazardous to human health. If so, state:

- 29  
30 a. whether copies of documents containing such  
31 warnings exist;  
32 b. the IDENTITY of the custodian of such documents.

33  
34 ANSWER: Yes. These documents are stored at the offices of  
35 Shea & Gardner.

36  
37 INTERROGATORY NO. 34:

1 State the IDENTITY of medical directors and/or  
2 industrial hygienists employed by THIS DEFENDANT in the  
3 United States.

4  
5 ANSWER: Medical Directors: Rockwell's corporate-wide  
6 medical directors include Dr. Richard Morrison from 1962  
7 until 1979, Dr. Robert Pringle from 1981 until 1984, Dr.  
8 Toby Freedman from 1985 until 1988, and Dr. Albert Puskas  
9 from 1988 until 1990. Rockwell has had plant physicians  
10 for a number of years. The details of such arrangements  
11 are contained in Rockwell's medical care files, which will  
12 be made available for inspection at the offices of Shea &  
13 Gardner.

14 Industrial Hygienists: From 1971-1983, John Rozas  
15 served as Rockwell's company-wide Manager of Industrial  
16 Hygiene. From 1970-1983, John Maciejczek served as  
17 Corporate Director of Environmental Health and Safety. In  
18 1993, Richard Risenweber became Vice President for  
19 Environment, Health, Safety, and Energy Conservation. Dick  
20 Johnson served as Plant Safety Manager in Troy, Michigan  
21 from 1974-1976, and William Long served as Regional Safety  
22 Manager in Troy, Michigan from 1976 - 1990. Barbara  
23 Boroughf has been a Regional Safety Manager since 1985, and  
24 Dick Michalack has been a Regional Safety Manager since  
25 1990.

26  
27 INTERROGATORY NO. 35:

28 Has any employee of THIS DEFENDANT testified by  
29 deposition on behalf of THIS DEFENDANT in a third-party

1 case, brought in the United States, wherein the plaintiff  
2 has alleged an asbestos-related injury? If so, for each  
3 such third party case, please state:

- 4  
5 a. the caption and case number;  
6 b. the court of filing including state and county;  
7 c. the date of the deposition  
8 d. the name and address of plaintiff's counsel of  
9 record.

10  
11 ANSWER: No.

12  
13 INTERROGATORY NO. 36:

14 Has THIS DEFENDANT had a CONTRACT UNIT? If so, for  
15 each CONTRACT UNIT, please state:

- 16  
17 a. the date such CONTRACT UNIT commenced operation;  
18 b. the date such CONTRACT UNIT(S) ceased operation;  
19 c. the name and location in the State of California  
20 of each job site at which such CONTRACT UNIT worked.

21  
22 ANSWER: No.

23  
24 INTERROGATORY NO. 37:

25 Has THIS DEFENDANT been a member of the following:

- 26  
27 a. Asbestos Textile Institute (ATI);  
28 b. Industrial Hygiene Foundation and/or Industrial  
29 Health Foundation (IHF);  
30 c. Mineral Wool Institute;  
31 d. Industrial Mineral Insulation Manufacturers  
32 Institute;  
33 e. Magnesia Silica Insulation Manufacturers  
34 Association;  
35 f. National Insulation Manufacturers Association  
36 (NIMA);  
37 g. Thermal Insulation Manufacturers Association  
38 (TIMA);  
39 h. Asbestos Information Association (AIA);  
40 i. Quebec Asbestos Mining Association (QAMA);  
41 j. National Safety Council;  
42 k. Asbestos Cement Producers Association;  
43 l. Refractories Institute;  
44 m. any other organizations or associations of  
45 manufacturers, miners, distributors, importers, labellers,  
46 suppliers and/or sellers of ASBESTOS-CONTAINING PRODUCTS;

1 (i) please state the name(s) of such  
2 organizations or associations.  
3

4 ANSWER: (a)-(1) No.

5 (m) Yes.

6 SAE (formerly the Society of Automotive Engineers)  
7 400 Commonwealth Drive  
8 Warrendale, Pennsylvania 15096  
9 (Rockwell employees, rather than Rockwell  
10 itself, are members of this organization.)  
11

12 Heavy-Duty Brake Manufacturers Council  
13 2460 Lemoine Avenue, Suite 510  
14 Fort Lee, New Jersey 07024  
15

16 INTERROGATORY NO. 38:  
17

18 For each organization, association or other entity  
19 identified in your Response to Interrogatory No. 37, please  
20 state:  
21

22 a. The dates during which THIS DEFENDANT was a  
23 member.

24 b. The name(s) of any publication(s) received by this  
25 defendant from such association or organization.

26 c. The name of such committee or subcommittee of  
27 which THIS DEFENDANT was a member, and the dates of such  
28 committee or subcommittee membership.  
29

30 ANSWER: Rockwell employees have been members of SAE for  
31 many years, and Rockwell has been a member of the Heavy-  
32 Duty Brake Manufacturers Council since 1986. Rockwell  
33 itself has never been a member of SAE or any of its  
34 committees. The answer to the remainder of this  
35 interrogatory may be obtained from documents concerning the  
36 Society of Automotive Engineers and Heavy-Duty Brake  
37 Manufacturers Council, which will be made available for  
38 inspection at the offices of Shea & Gardner, except for  
39 those documents that Rockwell claims are protected from  
40 disclosure on the basis of the attorney-client privilege or

1 work product rule, a list of which will also be made  
2 available in conjunction with the inspection of the  
3 remaining documents.

4

5 INTERROGATORY NO. 39:

6 Has THIS DEFENDANT received any DOCUMENTS containing  
7 results or conclusions of any studies and/or tests  
8 conducted by the Saranac Laboratory at the Trudeau  
9 Foundation relating to the human health consequences of  
10 exposure to asbestos? If so, please:

11

12 a. IDENTIFY all such DOCUMENT(S);

13 b. state the date upon which THIS DEFENDANT first  
14 received such DOCUMENT(S);

15 c. the IDENTITY of the custodian of such DOCUMENT(S).

16

17 ANSWER: No.

18

19 INTERROGATORY NO. 40:

20 State whether THIS DEFENDANT has ever maintained a  
21 library (or libraries) in the United States which contains  
22 books, articles, periodicals, journals and/or reference  
23 materials that relate to the subjects of asbestos,  
24 industrial hygiene, medicine, safety, occupational disease  
25 and/or engineering. If so, state:

26

27 a. the date each such library was established;

28 b. the location of each such library;

29 c. the IDENTITY of each librarian or other person in  
30 charge of such library;

31

32 ANSWER: Rockwell has maintained, at a number of its

33 facilities and corporate offices, collections of

34 engineering and related materials that might be considered

35 libraries. These collections have generally contained

36 regulatory materials which included information relating to

37 occupational exposure to asbestos, but have not generally

38 contained materials relating to asbestos and health.

1     INTERROGATORY NO. 41:

2           Has THIS DEFENDANT exchanged or communicated with any  
3 individual or other COMPANY documents containing the  
4 results of tests and/or studies of the relationship between  
5 the inhalation of asbestos fibers and development of  
6 disease(s); if so, please state:

- 7  
8           a. each individual or COMPANY with whom the  
9 information was exchanged or to whom it was communicated;  
10          b. the date(s) of any such exchanges or  
11 communications;  
12          c. the IDENTITY of the custodian of such documents.

13  
14     ANSWER: No.

15

16     INTERROGATORY NO. 42:

17           Has any employee of THIS DEFENDANT testified before  
18 the Occupational Safety and Health Administration, the  
19 National Institute of Occupational Safety and Health, or  
20 any committee or subcommittee of the United States Congress  
21 on the inhalation of asbestos dust and the development of  
22 disease; if so, please state:

- 23  
24          a. the entity before whom such testimony was given;  
25          b. the date(s) and location(s) of such testimony;  
26          c. the IDENTITY of the individual(s) who so  
27 testified;  
28          d. whether any DOCUMENTS were presented to the entity  
29 before which testimony was given;  
30          e. whether copies of DOCUMENTS presented were  
31 retained by THIS DEFENDANT;  
32             (i) if so, state the IDENTITY of the custodian of  
33 such DOCUMENTS.

34  
35     ANSWER: No.

36

37

38     INTERROGATORY NO. 43:

39           At any of the physical facilities identified in the  
40 response to Interrogatory No. 15, has THIS DEFENDANT  
41 conducted, or caused to be conducted, tests and/or studies  
42 of ambient asbestos dust created during the manufacture,  
43 processing and/or assembling of ASBESTOS-CONTAINING  
44 PRODUCT(S); if so, please state:

- 1           a. each manufacturing facility, including location  
2 and address, at which any such test and/or study was  
3 conducted;  
4           b. the date of each such test and/or study;  
5           c. the individual(s) or entity conducting each such  
6 test and/or study;  
7           d. whether THIS DEFENDANT has any documents  
8 containing the results and/or conclusions of each such  
9 study;  
10          e. the IDENTITY of the custodian of such documents.

11  
12       ANSWER:    Yes.

13                   (a)-(e) Since the early 1970s, Rockwell has  
14 performed regular monitoring of airborne asbestos  
15 concentrations at its automotive plants to determine the  
16 effectiveness of asbestos dust control measures and to  
17 ensure compliance with applicable health regulations.

18           Further information about the dates, locations,  
19 methodology, and results of individual asbestos monitoring  
20 measurements in Rockwell automotive plants may be found in  
21 monitoring records which will be made available for  
22 inspection at the offices of Shea & Gardner, except for  
23 those documents that Rockwell claims are protected from  
24 disclosure on the basis of attorney-client privilege or the  
25 work product rule, a list of which will also be made  
26 available in connection with the inspection of the  
27 remaining documents.

28  
29       INTERROGATORY NO. 44:

30           Has THIS DEFENDANT conducted, or caused to be  
31 conducted, any tests and/or studies on ambient asbestos  
32 dust levels at any location or job site where its ASBESTOS-  
33 CONTAINING PRODUCTS were utilized in the United States; if  
34 so, please state:

- 1 a. the location, including name and address, at which  
2 each such test and/or study was conducted;  
3 b. the individual(s) or entity conducting each such  
4 test and/or study;  
5 c. the date of each such test and/or study;  
6 d. whether THIS DEFENDANT has any documents  
7 containing the results and/or conclusions of each such test  
8 and/or study;  
9 e. the IDENTITY of the custodian of such documents.

10  
11 ANSWER: No, insofar as this question relates to locations  
12 other than Rockwell's own manufacturing plants. See answer  
13 to Interrogatory No. 43.

14  
15 INTERROGATORY NO. 45:

16 Did THIS DEFENDANT have any laboratory or other  
17 facility anywhere in the United States at which it  
18 conducted, or caused to be conducted, any tests and/or  
19 studies of its ASBESTOS-CONTAINING PRODUCTS to measure the  
20 amount of asbestos dust generated by any use for which such  
21 products were designed; if so, please state:

- 22  
23 a. the location, including name and address, at which  
24 each such test and/or study was conducted;  
25 b. the individual(s) or entity conducting each such  
26 test and/or study;  
27 c. the date of each such test and/or study;  
28 d. whether THIS DEFENDANT has any documents  
29 containing the results and/or conclusions of each such test  
30 and/or study;  
31 e. the IDENTITY of the custodian of such documents.

32  
33 ANSWER: No.

34  
35 INTERROGATORY NO. 46:

36 Has THIS DEFENDANT financially supported any research  
37 into the relationship between the inhalation of asbestos  
38 fiber and development of disease(s); if so, please state  
39 the date(s) and recipient(s) of such financial support.  
40

41 ANSWER: No.

1     INTERROGATORY NO. 47:

2             Has THIS DEFENDANT made available to its employees  
3 engaged in, anywhere in the United States, the MARKETING of  
4 its RAW ASBESTOS FIBER and/or its ASBESTOS-CONTAINING  
5 PRODUCT(S), a medical examination program; if so, please  
6 state:

7  
8             a. whether chest x-rays or pulmonary function tests  
9 were part of such program(s);

10            b. whether participation in any such program was a  
11 mandatory condition of employment or was voluntary;

12            (i) if mandatory as a condition of employment,  
13 how frequently each employee was required to undergo such  
14 examination;

15            c. whether THIS DEFENDANT has DOCUMENTS of such  
16 program;

17            d. the IDENTITY of the custodian of such DOCUMENTS.  
18

19     ANSWER: Yes. Medical examinations have been provided on  
20 an annual or biennial basis for all employees who take part  
21 in the machining of asbestos-containing linings at  
22 Rockwell's automotive plants. These employees are given  
23 physical examinations, chest x-rays, and pulmonary function  
24 tests. The earliest date medical examinations were  
25 provided is 1973. Documents relating to such examinations  
26 were maintained at each production facility in the ordinary  
27 course of business.

28

29     INTERROGATORY NO. 48:

30             Has THIS DEFENDANT notified in writing any individuals  
31 or COMPANIES to whom it MARKETING RAW ASBESTOS FIBER and/or  
32 ASBESTOS-CONTAINING PRODUCT(S), anywhere in the United  
33 States, of the potential-relationship between exposure to  
34 asbestos and disease; if so, please state:

35

36            a. the date(s) THIS DEFENDANT provided this  
37 information;

38            b. the means used for transmittal of such  
39 information;

1 c. whether THIS DEFENDANT has any copies of any  
2 DOCUMENTS transmitting such information;  
3 d. the IDENTITY of the custodian of such documents.

4  
5 ANSWER: Yes. See answers to Interrogatories No. 31 and  
6 32.

7  
8 INTERROGATORY NO. 49:

9 Has THIS DEFENDANT required any individual(s) who  
10 MARKETed its ASBESTOS-CONTAINING PRODUCT(S), anywhere in  
11 the United States, to wear respirators or face masks; if  
12 so, please state:

- 13  
14 a. the job title(s), if known, of individual(s)  
15 required to wear respirators or face masks;  
16 b. the date(s) on which THIS DEFENDANT first required  
17 the wearing of respirators or face masks;  
18 c. the means by which the requirement to wear  
19 respirators or face masks was communicated;  
20 d. whether THIS DEFENDANT has any copies of DOCUMENTS  
21 communicating such requirements;  
22 e. the IDENTITY of the custodian of such DOCUMENTS.

23  
24 ANSWER: No, insofar as this question relates to locations  
25 other than Rockwell's own manufacturing plants. See answer  
26 to Interrogatory No. 43.

27  
28 INTERROGATORY NO. 50:

29 Does or did THIS DEFENDANT utilize or employ any  
30 CONTRACT UNIT. If so, please state:

- 31  
32 a. the inclusive periods of time the CONTRACT UNIT(S)  
33 was utilized or employed;  
34 b. the business address and name of the CONTRACT  
35 UNITS(S);  
36 c. whether THIS DEFENDANT has any DOCUMENTS showing  
37 the location(s) of the job site(s) where the CONTRACT  
38 UNIT(S) worked, and if so, state the IDENTITY of the-  
39 custodian of such DOCUMENTS.

40  
41 ANSWER: No.

1     INTERROGATORY NO. 51:

2             Has THIS DEFENDANT received any written communication  
3     or other DOCUMENT, other than a claim for workers'  
4     compensation, that any person was claiming injury as a  
5     result of exposure to its RAW ASBESTOS FIBER and/or  
6     ASBESTOS-CONTAINING PRODUCT(S); if so, please IDENTIFY the  
7     first such written communication or DOCUMENT.  
8

9     ANSWER: Yes. The first lawsuit filed against Rockwell in  
10    which a plaintiff claimed an asbestos-related injury was  
11    the Hinton case, filed in the U.S. District Court for the  
12    Southern District of Mississippi on September 13, 1978.  
13    Rockwell was served with the complaint on September 14,  
14    1978.  
15

16    INTERROGATORY NO. 52:

17             Has any person filed a claim for asbestos-related  
18    injury against any workers' compensation insurance carrier  
19    which provided coverage for THIS DEFENDANT; if so, please  
20    state:  
21

- 22             a. the date of such claim;  
23             b. the name of claimant;  
24             c. the caption;  
25             d. the case number;  
26             e. the court in which the claim was filed;  
27             f. the IDENTITY of the custodian of such documents.  
28

29    ANSWER: Yes. The remaining answers to this interrogatory  
30    may be ascertained from Rockwell's files relating to  
31    workers' compensation claims, which will be made available  
32    for inspection at the offices of Shea & Gardner, except for  
33    those documents that Rockwell claims are protected from  
34    disclosure on the basis of the attorney-client privilege or  
35    the work product rule, a list of which will also be made

1 available in connection with the inspection of the  
2 remaining documents.

3

4 INTERROGATORY NO. 53:

5 Has any person filed a workers' compensation claim for  
6 asbestos-related injury against THIS DEFENDANT; if so,  
7 please state:

8

- 9 a. the date of such claim;  
10 b. the name of claimant;  
11 c. the caption;  
12 d. the case number;  
13 e. the court in which the claim was filed;  
14 f. the IDENTITY of the custodian of such documents.

15

16 ANSWER: See answer to Interrogatory No. 52.

17

18 INTERROGATORY NO. 54:

19 Does THIS DEFENDANT have insurance available to cover  
20 judgment(s) entered against it in asbestos-related personal  
21 injury lawsuits; if so, please state:

22

- 23 a. the name and principal place of business of any  
24 insurance carrier who has issued such policy of insurance;  
25 b. the number and effective date of each policy;  
26 c. the amount(s) of coverage of each policy;  
27 d. the applicable dates of coverage;  
28 e. any reservation of rights contained in each such  
29 policy;  
30 f. the amount of coverage presently exhausted under  
31 each such policy;  
32 g. the amount of coverage presently available under  
33 each such policy;  
34 h. whether limits contained in each such policy  
35 include costs of defense.

36

37 ANSWER: Yes. The answer to the remainder of this

38 interrogatory may be ascertained from Rockwell's insurance  
39 policies and related documents, which will be made  
40 available for inspection at the offices of Shea & Gardner,  
41 except for those documents that Rockwell claims are

1 protected from disclosure on the basis of the attorney-  
2 client privilege or the work product rule, a list of which  
3 will also be made available in connection with the  
4 inspection of the remaining documents.

5  
6 INTERROGATORY NO. 55:

7 Has THIS DEFENDANT owned or operated any petroleum  
8 refining facilities; if so, please state:

- 9  
10 a. whether any ASBESTOS-CONTAINING PRODUCTS were  
11 MARKETed on the premises of such refining facilities;  
12 b. the location, including the name and address of  
13 all such refining facilities;  
14 c. the dates of operation of such refining  
15 facilities;  
16 d. the types of ASBESTOS-CONTAINING PRODUCTS MARKETed  
17 on such premises;  
18 e. the names of the manufacturers of any ASBESTOS-  
19 CONTAINING PRODUCTS MARKETed on such premises;  
20 f. whether THIS DEFENDANT has documents identifying  
21 such MARKETing;  
22 g. the IDENTITY of the custodian of such documents.

23  
24 ANSWER: No.

25  
26 INTERROGATORY NO. 56:

27 Has THIS DEFENDANT held any ownership interest in a  
28 COMPANY which owned or operated petroleum refining  
29 facilities: if so, for the period(s) of time during which  
30 THIS DEFENDANT held such interest, please state:

- 31  
32 a. whether any ASBESTOS-CONTAINING PRODUCTS were  
33 MARKETed on the premises of such refining facilities;  
34  
35 b. the location, including the name and address of  
36 all such refining facilities;  
37 c. the dates of operation of such refining  
38 facilities;  
39 d. the types of ASBESTOS-CONTAINING PRODUCTS MARKETed  
40 on such premises;  
41 e. the names of the manufacturers of any ASBESTOS-  
42 CONTAINING PRODUCTS MARKETed on such premises;

1 f. whether THIS DEFENDANT has documents identifying  
2 such MARKETing;  
3 g. the IDENTITY of the custodian of such documents.  
4

5 ANSWER: No.  
6

7 INTERROGATORY NO. 57:

8 Has THIS DEFENDANT contracted with any COMPANY for the  
9 MARKETing of ASBESTOS-CONTAINING PRODUCT(S) on any premises  
10 owned or leased by THIS DEFENDANT; if so, please state:  
11

12 a. the location, including name and address of such  
13 premises;

14 b. the name and address of each such COMPANY;

15 c. the types of ASBESTOS-CONTAINING PRODUCTS;

16 d. the name of the manufacturers of such ASBESTOS-  
17 CONTAINING PRODUCTS;

18 e. whether THIS DEFENDANT has DOCUMENTS of such  
19 MARKETing;

20 f. the IDENTITY of the custodian of such DOCUMENTS.  
21

22 ANSWER: No.  
23

24 Dated: December 1, 1994

*Dana J. Martin*

David Booth Beers  
Thomas J. Mikula  
Dana J. Martin

28 Shea & Gardner  
29 1800 Massachusetts Ave., N.W.  
30 Washington, D.C. 20036  
31 (202) 828-2000  
32

33 Attorneys for Defendant  
34 Rockwell International  
35 Corporation  
36

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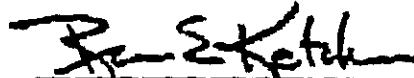
VERIFICATION

COUNTY OF OAKLAND                    )  
                                          )     SS.  
STATE OF MICHIGAN                    )

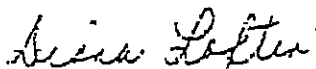
BRUCE E. KETCHAM, of full age, being duly sworn  
according to law, upon his oath deposes and says:

1. I am the Manager, Product Analysis of defendant  
Rockwell International Corporation's Automotive Division  
and am duly authorized to make this affidavit on its  
behalf.

2. The facts set forth in the foregoing answers to  
interrogatories are true to the best of my personal  
knowledge, information, and belief.

  
\_\_\_\_\_  
Bruce E. Ketcham

Subscribed and sworn to before me this 30 day of  
November, 1994.

  
\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

DIANA R. LOFTIN  
NOTARY PUBLIC - OAKLAND COUNTY, MI

DIANA R. LOFTIN  
NOTARY PUBLIC - OAKLAND COUNTY, MI  
MY COMMISSION EXPIRES 01/02/99

DA

SHEA & GARDNER  
1800 MASSACHUSETTS AVENUE, N.W.  
WASHINGTON, D.C. 20036

FRANCIS M. SHEA (1905-1989)  
WARNER W. GARDNER  
LAWRENCE J. LATTO  
RICHARD T. CONWAY  
ROBERT T. BASSECHES  
BENJAMIN W. BOLEY  
RALPH J. MOORE, JR.  
MARTIN J. FLYNN  
STEPHEN J. POLLAK  
DAVID BOOTH BEERS  
ANTHONY A. LAPHAM  
RICHARD M. SHARP  
JOHN D. ALOOCK  
WILLIAM S. MOORE  
JOHN TOWNSEND RICH  
JAMES R. BIEKE  
1. MICHAEL GREENBERGER  
WILLIAM F. SHEEHAN  
FREDERICK C. SCHAFFICK  
DAVID B. COOK  
STEPHEN J. HADLEY  
WILLIAM H. DEMPSEY  
OF COUNSEL

FRANKLIN D. KRAMER  
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NANCY C. SHEA  
TIMOTHY K. SHUBA  
JAMES R. BIRD  
MICHAEL S. GIANNOTTO  
JEFFREY C. MARTIN  
WILLIAM R. HANLON  
ELIZABETH RUNYAN GEIST  
COLLETTE C. GOODMAN  
JULIE M. EDMOND  
LAURA S. WERTHEIMER  
RICHARD M. WYNER  
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DAVID A. BOND  
KENNETH F. SPARKS  
LISA A. LANDSMAN  
ANTHONY HONG  
AMANDA BERLOWE JAFFE  
JOHN MOUSTAKAS  
DAVID E. JONES  
JONATHAN D. BOGGS  
CYNTHIA GURNEE PUGH

DANA J. MARTIN  
J. BRADFORD WIEGMANN  
LLOYD D. COLLIER  
DAVID M. BATTAN\*  
VALERIE E. ROSS\*  
MICHAEL K. ISENMAN  
DAVID B. GOODHAND  
BENJAMIN J. VERNIA  
MARTHA HIRSCHFELD  
AMY HORTON  
DAVID J. KATZ  
CELESTINE R. MCCONVILLE  
EDWARD J. NAUGHTON\*  
KIM E. DETTELBACH\*  
MARTIN F. HANSEN\*

\*NOT ADMITTED IN D.C.

December 8, 1994

**VIA FEDERAL EXPRESS**

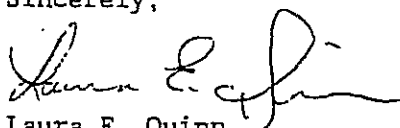
Francis Fernandez, Esquire  
Kazan, McClain, Edises & Simon  
171 Twelfth Street, Third Floor  
Oakland, California 94607

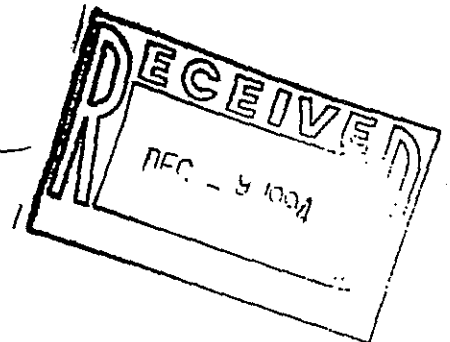
Re: Mary Gadei v. Owens-Corning Fiberglas Corp. et al., No. 739867-2  
(Alameda Superior Court)

Dear Mr. Fernandez:

Enclosed is an original executed copy of the verification of Bruce Ketcham on behalf of Rockwell International.

Sincerely,

  
Laura E. Quinn  
Legal Assistant



Enclosure

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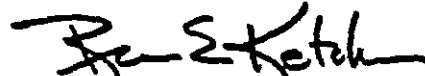
VERIFICATION

COUNTY OF OAKLAND                                 )  
                                                              )  
STATE OF MICHIGAN                                 )       SS.

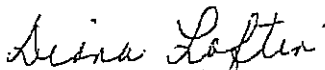
BRUCE E. KETCHAM, of full age, being duly sworn  
according to law, upon his oath deposes and says:

1. I am the Manager, Product Analysis of defendant  
Rockwell International Corporation's Automotive Division  
and am duly authorized to make this affidavit on its  
behalf.

2. The facts set forth in the foregoing answers to  
interrogatories are true to the best of my personal  
knowledge, information, and belief.

  
\_\_\_\_\_  
Bruce E. Ketcham

Subscribed and sworn to before me this 30 day of  
November, 1994.

  
\_\_\_\_\_  
Notary Public

DIANA R. LOFTIN  
NOTARY PUBLIC - OAKLAND COUNTY, MI

My Commission Expires: \_\_\_\_\_

DIANA R. LOFTIN  
NOTARY PUBLIC - OAKLAND COUNTY, MI  
MY COMMISSION EXPIRES 01/02/99

## GRIEVANCE FORM

NORTH AMERICAN ROCKWELL — National Agreement-UAW

Grievance No.

Plant

|                                           |                       |                         |                                    |
|-------------------------------------------|-----------------------|-------------------------|------------------------------------|
| Name of Grievant<br><b>LOCAL 274</b>      |                       | Clock No.               | Seniority Date                     |
| Classification                            | Dept.<br><b>30131</b> | Shift<br><b>ALL</b>     | Hourly Rate                        |
| Name of Protested Employee                |                       | Clock No.               | Seniority Date                     |
| Classification                            | Dept.                 | Shift                   | Hourly Rate                        |
| Paragraph(s) of Agreement Violated        | N-<br><b>104</b>      | S-<br><b>ARTICLE XI</b> | If none, so state<br><b>O.S.H.</b> |
| Date Violation Occurred<br><b>1-10-73</b> |                       |                         |                                    |

## STEP 2: Statement of Dispute and Remedy Requested

At the present time we are still receiving lining from vendors that have not removed the asbestos dust from the rivet and bolt holes thus creating a serious health hazard to the operators of the riveters and the G.M.C. bench. <sup>THIS</sup> is a serious problem and must be stopped immediately.

|                       |                               |                                                        |                                  |
|-----------------------|-------------------------------|--------------------------------------------------------|----------------------------------|
| Signature of Grievant | Date Signed<br><b>1-11-73</b> | Signature of Union Official<br><i>Joseph P. Richey</i> | Date Submitted<br><b>1-11-73</b> |
|-----------------------|-------------------------------|--------------------------------------------------------|----------------------------------|

## STEP 2: Management's Disposition

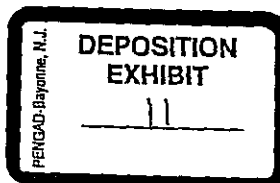
All vendors of brake blocks are being notified by the Purchasing Dept. to ensure that material received from them meets the specifications as set forth in the purchase agreement. At the same time, air sample tests are being made at the GM bench to see if a health hazard does, in fact, exist. Naturally, if a hazard is present, the Company will take necessary action to correct same. Grievance allowed as qualified.

|                                                         |                                  |                                                  |                                 |
|---------------------------------------------------------|----------------------------------|--------------------------------------------------|---------------------------------|
| Signature of Management Official<br><i>Harold Krest</i> | Date Submitted<br><b>1-15-73</b> | Signature of Union Official<br><i>Joe Richey</i> | Date Received<br><b>1-15-73</b> |
|---------------------------------------------------------|----------------------------------|--------------------------------------------------|---------------------------------|

## STEP 3: If Management's STEP 2 Disposition is unacceptable, state reason for appealing

|                             |                |                                  |               |
|-----------------------------|----------------|----------------------------------|---------------|
| Signature of Union Official | Date Submitted | Signature of Management Official | Date Received |
|-----------------------------|----------------|----------------------------------|---------------|

## STEP 3: Management's Disposition



RD 00449

|                                  |                |                             |               |
|----------------------------------|----------------|-----------------------------|---------------|
| Signature of Management Official | Date Submitted | Signature of Union Official | Date Received |
|----------------------------------|----------------|-----------------------------|---------------|

PREPARE IN QUADRUPLICATE: 1-Comm. Chairman, 2-Union, 3-Personnel Supervisor, 4-Supervisor  
(Use attachments - Do Not Write on Back of Form)

REV. 2-1-71

## GRIEVANCE FORM

NORTH AMERICAN ROCKWELL - National Agreement-UAW

Grievance No.

738

Plant

|                                                   |                       |                         |                                           |
|---------------------------------------------------|-----------------------|-------------------------|-------------------------------------------|
| Name of Grievant<br><b>LOCAL 274</b>              |                       | Clock No.               | Seniority Date                            |
| Classification                                    | Dept.<br><b>30131</b> | Shift<br><b>A11</b>     | Hourly Rate                               |
| Name of Protested Employee                        |                       | Clock No.               | Seniority Date                            |
| Classification                                    | Dept.                 | Shift                   | Hourly Rate                               |
| Paragraph(s) of Agreement Violated                | N-                    | S- <b>104-ARTICLE Y</b> | If none, so state <b>C.S.H</b>            |
| STEP 2: Statement of Dispute and Remedy Requested |                       |                         | Date Violation Occurred<br><b>1-10-73</b> |

At the present time we are still receiving lining from vendors that have not removed the asbestos dust from the rivet and bolt holes thus creating a serious health hazard to the operators of the riveters and the G.M.C. bench. This is a serious problem and must be stopped immediately.

|                       |                               |                                                        |                                  |
|-----------------------|-------------------------------|--------------------------------------------------------|----------------------------------|
| Signature of Grievant | Date Signed<br><b>1-11-73</b> | Signature of Union Official<br><b>Joseph P. Richey</b> | Date Submitted<br><b>1-11-73</b> |
|-----------------------|-------------------------------|--------------------------------------------------------|----------------------------------|

## STEP 2: Management's Disposition

All vendors of brake blocks are being notified by the Purchasing Dept. to ensure that material received from them meets the specifications as set forth in the purchase agreement. At the same time, air sample tests are being made at the GM bench to see if a health hazard does, in fact, exist. Naturally, if a hazard is present, the Company will take necessary action to correct same. Grievance allowed as qualified.

|                                                              |                                  |                                                  |                                 |
|--------------------------------------------------------------|----------------------------------|--------------------------------------------------|---------------------------------|
| Signature of Management Official<br><b>T. H. H. H. H. H.</b> | Date Submitted<br><b>1-15-73</b> | Signature of Union Official<br><b>Joe Richey</b> | Date Received<br><b>1-15-73</b> |
|--------------------------------------------------------------|----------------------------------|--------------------------------------------------|---------------------------------|

## STEP 3: If Management's STEP 2 Disposition is unacceptable, state reason for appealing

|                             |                |                                  |               |
|-----------------------------|----------------|----------------------------------|---------------|
| Signature of Union Official | Date Submitted | Signature of Management Official | Date Received |
|-----------------------------|----------------|----------------------------------|---------------|

## STEP 3: Management's Disposition

RD 00450

|                                  |                |                             |               |
|----------------------------------|----------------|-----------------------------|---------------|
| Signature of Management Official | Date Submitted | Signature of Union Official | Date Received |
|----------------------------------|----------------|-----------------------------|---------------|

PREPARE IN QUADRUPLICATE: 1-Comm. Chairman, 2-Union, 3-Personnel Supervisor, 4-Supervisor  
(Use attachments - Do Not Write on Back of Form)

REV. 2-1-71

--- Messrs. L. Vander Roest  
K. Davidson

January 12, 1973

Molded Materials Division  
P.O. Box 417  
Ridgway, Pennsylvania 15853

Attention Mr. Ed Zacharias

Gentlemen:

This letter is being directed to all of our lining suppliers along with a copy of a grievance from our local labor representation, UAW Local 274. This grievance is self-explanatory and some of you have been cautioned of this condition previously and advised this situation cannot be tolerated. To those of you who have been supplying lining trouble free we appreciate your diligence, but to those who are negligent, we must advise that material found in the condition described, is subject to rejection and return at your expense.

It is requested that prompt attention be given this matter to insure that only acceptable material reaches our plant.

Very truly yours,

ROCKWELL-STANDARD DIVISION  
North American Rockwell

  
V. E. Pilkington  
Purchasing Agent

VEP/pm  
Enclosure

RD 00452

July 12, 1973

Dr. Jon Swanson  
Swanson Environmental Consultants, Inc.  
24680 Swanson Road  
Southfield, Michigan 48076

Dear Jon:

Enclosed are the photomicrographs you allowed us to see. I apologize for not returning them sooner.

I understand our Mr. Quick has been in contact with you. I certainly hope you will be able to assist us.

Again, thank you for sending this material to us. It was most helpful and we here have a better understanding of what asbestos and resinous material look like. -

Very truly yours,

ROCKWELL-STANDARD DIVISION  
Rockwell International Corp.

Larry Vander Roest  
Ass't. Manager  
Personnel & Industrial Relations

ma

Encl.

RD 00456

cc: Messrs. L. Vander Roest  
K. Davidson

January 12, 1973

The Bendix Corporation  
Friction Materials Division  
420 North Center Building  
20700 Greenfield Road  
Oak Park, Michigan 48237

Attention Mr. J. L. Manion

Gentlemen:

This letter is being directed to all of our lining suppliers along with a copy of a grievance from our local labor representation, UAW Local 274. This grievance is self-explanatory and some of you have been cautioned of this condition previously and advised this situation cannot be tolerated. To those of you who have been supplying lining trouble free we appreciate your diligence, but to those who are negligent, we must advise that material found in the condition described, is subject to rejection and return at your expense.

It is requested that prompt attention be given this matter to insure that only acceptable material reaches our plant.

Very truly yours,

ROCKWELL-STANDARD DIVISION  
North American Rockwell



V. E. Pilkington  
Purchasing Agent

VEP/pm  
Enclosure

RD 00453

cc: Messrs. L. Vander Roest  
K. Davidson

January 12, 1973

Abex Corporation  
American Brakeblok Division  
1650 W. Big Beaver Rd., Suite 205  
Troy, Michigan 48084

Attention Mr. C. E. Hubbard

Gentlemen:

This letter is being directed to all of our lining suppliers along with a copy of a grievance from our local labor representation, UAW Local 274. This grievance is self-explanatory and some of you have been cautioned of this condition previously and advised this situation cannot be tolerated. To those of you who have been supplying lining trouble free we appreciate your diligence, but to those who are negligent, we must advise that material found in the condition described, is subject to rejection and return at your expense.

It is requested that prompt attention be given this matter to insure that only acceptable material reaches our plant.

Very truly yours,

ROCKWELL-STANDARD DIVISION  
North American Rockwell



V. E. Pilkington  
Purchasing Agent

VEP/pm  
Enclosure

RD 00454

*cc: Larry Under Keast*

CARLISLE  
HEAVY DUTY  
BRAKE BLOCKS  
AND SEGMENTS



Molded Materials Division  
CARLISLE CORPORATION

P. O. BOX P, RIDGWAY, PA. 15853

TELEPHONE (814) 773-3187

January 23, 1973

North American Rockwell Corporation  
Rockwell-Standard Company  
3500 North Ridge West  
Ashtabula, Ohio 44004

Attention: Mr. V. E. Pilkington  
Purchasing Agent

Re: Your letter of January 12, 1973

Subject: Asbestos dust in rivet and bolt  
holes

Dear Mr. Pilkington:

We believe we have taken all possible steps to insure that you  
encounter no difficulty on above subject.

Yours sincerely,

MOLDED MATERIALS DIVISION

E. R. Zacharias  
President

ERZ:pj

RD 00455

*swanson environmental consultants, inc.*

7 South Dearborn Street  
Suite 1631  
Chicago, Illinois 60603

Telephone (312) 372-5493

June 5, 1973

Rockwell Standard Division  
Rockwell International  
3500 North Ridge West  
Ashtabula, Ohio 44004

Attn: Mr. Larry E. Van Der Roest  
Assistant Manager, P. & I.R.

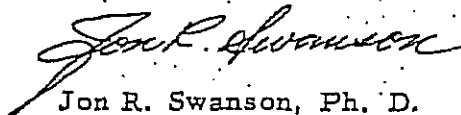
Dear Sir:

Attached you will find photomicrographs of previous asbestos samples obtained in a brake manufacturing plant. Plate #1 shows very clearly a good example of the asbestos fibers under extremely high magnification. Plate #2 shows a grinding operation sample with only a large resinous piece of material visible on the membrane surface. It is my contention that these resinous materials may be the object of your current problem with OSHA. Plate #3 provides a good view of both the filters and resinous material under extremely high magnification.

I would recommend to you that our firm obtained some independent samples in your grinding areas to provide you with visible evidence such as enclosed which may be useful in possible litigation. I would be most pleased to discuss this further with your attorneys or staff.

Please return the enclosed photomicrographs as soon as possible as these are part of our permanent files.

Very truly yours,



Jon R. Swanson, Ph. D.

JRS:eae

Enclosures

RD 00457

Southfield, Michigan - Telephone (313) 352-0960

# Internal Letter



Rockwell International

EH

Date July 15, 1974

No.

TO Messrs: J. Ensman  
Address E. Bollard  
A. Wrightnour

FROM W.J. Robison Jr.

Address

Phone Ext. 268

Subject Lining Dust in Blocks as Received - Health Hazard.

Due to possible health hazard caused by excessive asbestos dust left in linings by vendors the following procedures will be implemented.

1. Receiving Inspectors will note Receiving Inspection Transfer with code 82 (cleanliness defect) when excessive lining dust is found.
2. Mr. Ensman will initiate SWO to clean and advise vendor of charge back.
3. Mr. Ensman will requisition a small "Shop Vac" to be used for dust removal in rework area.
4. Department Foremen (30A and B 31A and Midnights) and Inspectors will advise vendor, part number and quantities found in balance of shipments discovered with excessive lining dust in departments and transfer linings to rework area.
5. Mr. Ensman will implement items 2 & 3 to affect corrections.

*W.J. Robison*  
W.J. Robison Jr.

dlf

cc: Rec. Insp. (7)

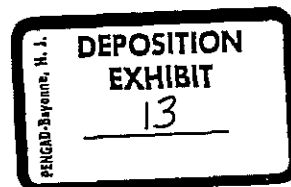
W. Moon

E. Gierok

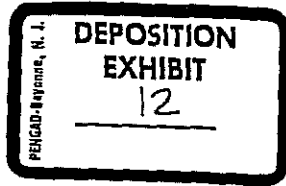
V. Pilkington

Foremen & Insp. 30A & B

31A & Midnights (14)



RD 00494



8  
August 19, 1971

*2/1/72*  
Subject: Inspection of Asbestos Lining in Department 30,  
by OSHA Complaint Officer

On August 11, 1971, at approximately 2:45 p.m., Mr. Heard advised Mr. Fred Griffiths, Plant Manager, and presented his credentials that he had been contacted to inspect the plant. The purpose of this inspection was based upon a complaint filed by an employee. The complainant wished to remain anonymous, therefore his name was not disclosed.

The inspector advised Mr. Griffiths and Mr. Davis that the specific complaint related to the grinding operation of asbestos lining in Department 30. During the initial conversation, the inspector questioned the above individuals concerning the plant operations, to provide him with the necessary information for completing the government forms.

He asked if there was a designated representative of the employees to conduct the Company representative on the tour. He was advised the Company representative would be Mr. Davis, Manager of Industrial Relations and Personnel, and the employee representative would be Mr. J. Richey, Chairman of the Union Safety Committee.

Mr. Heard was advised that the company was aware of the potential health hazard that could be caused by asbestos and, in fact, had employed the services of George D. Clayton & Associates to conduct an air sampling survey. The purpose of this survey was to evaluate the contamination of the air in those areas where asbestos was being ground, drilled, or riveted. The results of the survey, which was conducted in July, were not yet available and as soon as they were received the Company would be evaluating the findings and recommendations to determine what, if any, action was necessary.

At approximately 3:15 p.m., Mr. Richey, Mr. Davis, and Mr. Heard commenced the tour in Department 30 - grinding operation. During the initial stages, it was brought to the attention of the inspector, by Mr. Richey, that there were other areas where manufacturing operations were being performed on asbestos lining. As a result, the inspection included all areas where considerable lining was operated on including: Department 30 - grinding, riveting, and outside dust collecting unit, Department 31 - grinding, riveting, drilling, and dust collecting unit, Department 50 - assembler, and the Tennant sweeper.

The inspection overlapped into the second shift, during which time Mr. Heard talked at considerable length with Mr. R. Pearson, a riveter in Department 30. In addition, a conversation was also held with a group of four employees, who pointed out a specific dust problem when the large brake linings were ground in Department 31. The

RD 00446

inspector advised this group of employees that, in a situation such as he was experiencing here, it was conceivable that to see all of the problems and products manufactured by this organization, he would have to spend a month in the plant. However, unfortunately, or fortunately, his schedule would not permit this to occur and therefore he was aware of the fact that he may not be seeing the best or the worst conditions.

The union second shift safety representative, Mr. D. Hunt, requested that the inspector go down to the assembly department and observe the handling of the brake lining. Mr. Hunt alleged considerable dust was emitted in the handling of the lining. At this point, Mr. Hunt accompanied the inspection team to the assembly department. Mr. Heard advised that there appeared to be no dust on the floor underneath the boxes of brake linings, nor did there appear to be any dust in the air from handling of these linings by the assemblers, therefore he did not consider this a potential health hazard area.

At this point, the group left the assembly department and proceeded back up to the main office area. Mr. Davis then advised Mr. Hunt that the OSHA did not provide for two representatives of the employees to accompany the inspector on his inspection, and in accordance with this rule, asked Mr. Hunt to return to work, as the employees were represented by Mr. Richey, Chairman of the Union Safety Committee.

Mr. Heard, at this time advised Mr. Richey and Mr. Davis that he was pleased with the cooperation he had seen exhibited between the company and the union, and further that it was apparent that the company recognized the potential health problem, as they had employed the services of an outside consultant, and furthermore it appeared the union was understanding of the reason for not making changes in the present system, until such time as the report by the consultants could be analyzed and studied.

Following this brief report, at approximately 5:15 p.m. the following critique was given by Mr. Heard to Mr. Griffiths and Mr. Davis.

1. That the anonymous complainant had advised the inspector, during the tour, that his name could be divulged. The complainant is Mr. R. Pearson. The inspector related that Mr. Pearson appears to believe things are "looking up", as the company has had a survey made.
2. The guards on all chain driven belts should not be below 7 ft. The company advised the inspector they were aware of this, in fact approximately 2 weeks ago they had commenced to survey the plant to determine the most feasible method of accomplishing this task.

3. Small portable fans be removed or brought into compliance with the laws. Company advised that portable fans referred to were personal property of the employees and that they would take necessary action.
4. Pedestal grinders be brought into compliance with law. Company was also aware of this and the Maintenance Department was commencing to work on it.
5. Respirators should be furnished to employees when they are requested. Company advised this was the practice, and in fact in the last several weeks had furnished two respirators to employees who had requested same.
6. Inspector recommended that Tennant sweeper be replaced, as it appeared to be ineffective. Company advised that they were presently studying various proposals and types of sweeper equipment.
7. Inspector questioned the length of the run on the dust collector in Department 30. Company advised this would be looked into.
8. Inspector advised the line in Department 30 was reported to be half full of brass and suggested that the line be cleaned out. Company advised they will look into this.

In summation, the inspector reported he was not unduly concerned over the asbestos problem at this time, since the Company was investigating the potential health hazards and at this time was waiting for a report from their consultants.

At approximately 5:45 p.m. the inspector departed.

Mel Davis

MD/jt

ASSESSMENT RESPECTING ASBESTOS EXPOSURE  
ROCKWELL INTERNATIONAL  
HIGHWAY BRAKE AND TRAILER AXLE DIVISION  
TILBURY, ONTARIO

The following assessment is documented to meet the requirements of Section 6 (1) of the Regulation respecting asbestos, Chapter 321 of the Revised Statutes of Ontario, 1980.

The completion of this document was achieved with the able assistance of the following personnel:

- Mr. Peter Belanger, Plant Chairman of Local 1941 of the UAW, representing hourly employees at the Tilbury plant;
- Mr. Edgar Labonte and Mr. Greg Church, both Health and Safety Committee Members of Local 1941 of the UAW;.
- Mr. Joe Simard, Labour Relations Supervisor at Tilbury;
- Mr. Dan Ianicello, Manager, Industrial Relations at Tilbury;
- Mr. Mike Berthiaume, Director of Manufacturing at Troy, Michigan, and former Plant Manager at Tilbury.

The input from the various parties was greatly appreciated. It is a consensus that this assessment indicates Rockwell has satisfied the requirement and the intent of the Legislation.



**WORKBOOK FOR  
DESIGNATED SUBSTANCE ASSESSMENTS**

SUBSTANCE: ASBESTOS (CHRYSTILE)

DATE: AUGUST 22, 1983

COMPANY NAME: ROCKWELL INTERNATIONAL

DEPARTMENT/OPERATION(S):

HIGHWAY BRAKE & TRAILER AXLE DIVISION

LOCATION(S):

TILBURY, ONTARIO

ASSESSMENT PREPARED BY: W.J. LONG

TITLE: REGIONAL MANAGER, SAFETY ENGINEERING, TROY, MICHIGAN

DATE PREPARED: AUGUST 22, 1983

RD 00529

APPLICATION — WORKSHEET 1: IS THE DESIGNATED SUBSTANCE PRESENT?

1. (a) Do any of the processes or activities or situations listed in the Appendix, or other information sources, indicate that the substance is or may be present?

YES ☒

NO ☐

1. (b) Do any data sheets or information from your suppliers indicate the presence of the substance?

YES ☒

NO ☐

2. If substance is present, indicate the department where it is used, nature of the use (i.e. direct or indirect) and the quantity purchased per month or year:

| <u>Product Name</u>                               | <u>Department</u>       | <u>How Used?</u><br><u>Direct/Indirect</u> | <u>Quantity</u><br><u>Per Month/Year</u>        |
|---------------------------------------------------|-------------------------|--------------------------------------------|-------------------------------------------------|
| BRAKE LININGS<br>(CHRYSONILE<br>ASBESTOS)         | RIVET & GRIND           | DIRECT                                     | * . 140,000 TOTAL/MO                            |
|                                                   | ASSEMBLY                | DIRECT                                     | . 80,000/MO ARE<br>GROUND                       |
|                                                   | SHIPPING &<br>RECEIVING | INDIRECT                                   | . 17,200 ARE NON<br>ASBESTOS<br>LININGS         |
|                                                   | QUALITY CONTROL         | INDIRECT                                   |                                                 |
|                                                   | WAREHOUSING             | INDIRECT                                   | . 400 OF THE<br>80,000 ARE NON<br>ASBESTOS      |
|                                                   | CENTRAL PAYOUT          | INDIRECT                                   |                                                 |
|                                                   | CAROUSEL                | INDIRECT                                   | ** . 100,000/TOTAL/MO                           |
|                                                   | LIFT TRUCK DRIVER       | INDIRECT                                   | ** . 40,000 ARE GROUND                          |
|                                                   |                         |                                            | ** 40% OF TOTAL<br>LININGS ARE NON-<br>ASBESTOS |
| * THESE FIGURES ARE FOR THE MONTH OF AUGUST, 1983 |                         |                                            |                                                 |
| ** " " " " " " " JANUARY, 1986                    |                         |                                            |                                                 |

CONCLUSIONS

Read statements and check applicable box:

- ☐ Substance not present anywhere in workplace; regulation does not apply.  
No Assessment needed.
- ☒ Processes/activities have been identified where substance present.  
Proceed to worksheet 2.

# APPLICATION — WORKSHEET 2: IS WORKER EXPOSURE LIKELY?

1. In what form does the substance enter the plant? SOLID & SOME DUST IN THE BOXES.

Product title: BRAKE LININGS

Type of container: CARDBOARD BOXES

Size of Container: 25 LININGS EACH OR 50 LININGS EACH

2. Is this form altered during use or in the operation?

YES ☒ NO ☐

If YES, indicate altered form: 57% OF LININGS ARE GROUND; THIS GENERATES DUST

3. Is there a possibility of the substance being released into the workplace environment during normal use?

YES ☒ NO ☐

If YES, indicate the stage of the operation or areas where this can occur.  
INSPECTION, MATERIAL HANDLING, RIVETING, GRINDING, BRAKE ASSEMBLY BENCH, STACKING AND BANDING.

4. If YES, to Question 3, specify the job functions and approximate number of employees who might be exposed: (see addendum #1)

Job Function

Number of Employees

RIVETERS & GRINDERS

10 OVER 3 SHIFTS

5. If YES, to Question 3, indicate how workers could be exposed:

Inhalation

☒

Ingestion

☒

Skin absorption

☐

Skin contact

☐

6. If NO, to Question 3, is there a likelihood of escape due to leaks, accidents, etc.?

YES ☐ NO ☐

Are workers likely to be exposed?

YES ☐ NO ☐

## CONCLUSIONS

Are there any activities/situations where exposure by any route is likely?

YES ☒ NO ☐

If NO, no further action is necessary. Date completed \_\_\_\_\_

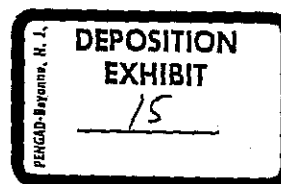
If YES, an assessment is necessary. — Proceed to Section III

**Note:** If protection against exposure has been left up to some engineering control measure which can fail, or deteriorate for any reason, or to a work/hygiene practice, an assessment is necessary. — Proceed to Section III.

INDUSTRIAL HYGIENE SURVEY

ROCKWELL-STANDARD COMPANY  
BRAKE PLANT  
ASHTABULA, OHIO

September 15, 1970



RD 00576

for better environment  
(11/1/71)

October 20, 1970

Mr. John Florip  
Environmental Safety Engineer  
Rockwell-Standard Company  
Detroit, Michigan 48231

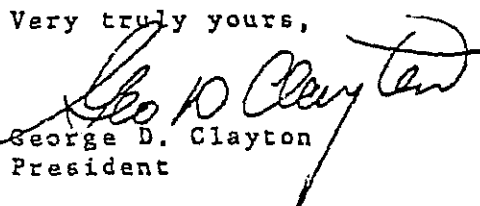
Dear Mr. Florip:

Presented herewith are three copies of our report covering the industrial hygiene survey conducted at the Ashtabula Brake Plant on September 15, 1970.

In summary, we find the airborne concentrations of particulate, including oil mist, iron oxide and asbestos to be within acceptable levels. It should be noted that this study represents a very limited, screening type survey rather than a careful documentation of workers' exposures on the basis of repeated samples. It is apparent, however, that on the basis of this limited study there is no obvious evidence of inhalation hazards to workers in the plant.

It has been a pleasure for us to assist you with this project. Should there be any questions concerning the study, do not hesitate to call.

Very truly yours,

  
George D. Clayton  
President

GDC:es

RD 00577

INDUSTRIAL HYGIENE SURVEY  
ROCKWELL-STANDARD COMPANY  
BRAKE PLANT  
ASHTABULA, OHIO

INTRODUCTION

Rockwell-Standard Company retained George D. Clayton & Associates, Inc. to conduct an industrial hygiene survey at its Brake Plant near Ashtabula, Ohio. This report summarizes the results of that study conducted on September 15, 1970 by Mr. John E. Mutchler of Clayton & Associates, assisted by Mr. John Florip, Environmental Safety Engineer, Rockwell-Standard Company.

DESCRIPTION OF OPERATIONS

The Rockwell-Standard Plant surveyed produces asbestos lined cast and fabricated brake shoes for trucks and trailers. The basic operations include the formation of brake shoes by projection welding with subsequent grinding, milling, machining, asbestos liner bonding (both adhesive and riveted), sizing and assembly. The facility is a one story building covering about 236,000 square feet.

A visual inspection of the plant revealed a neat, well-kept operation for this type of manufacturing, with potential inhalation exposure to workers from the following materials: total inert dust, iron oxide from welding fume, oil mist and asbestos fibers.

TOXICITY AND HAZARDS OF MATERIALS SAMPLED

INERT DUST

The term "inert dust" includes a wide variety of chemical substances both inorganic and organic, which have been so classified because of a long history of not producing lung disease after prolonged exposures. Because all dust, however inert, may under extraordinary circumstances produce lung disease, it is desirable to place a limit on exposures to these materials. The American Conference of Governmental Industrial Hygienists has specified a Threshold Limit Value (TLV) of 10 milligrams per cubic meter or 30 million particles per cubic foot of air as representing acceptable limits of good hygienic practice.

IRON OXIDE

Industrial experience has shown a high incidence of mottling of the lungs, or iron pigmentation in workers exposed to high concentrations of airborne iron oxide. However, the usual effect is considered to be benign pneumoconiosis since it does not lead to fibrous proliferation, has a low order of severity, and usually requires six to

ten years of exposure before effects are observable by X-ray techniques. The American Conference of Governmental Industrial Hygienists has established a TLV for iron oxide fume of 5 milligrams per cubic meter of air based primarily on preventing iron deposition in the lungs.

#### OIL MIST

Oil mists encountered in industrial operations consist of hundreds of individual hydrocarbon compounds from the paraffinic, cycloparaffinic, aromatic, and polyaromatic series. Generally, these oils have a low degree of toxicity and, since their vapor pressures are quite low, inhalation of vapors is not a significant health hazard. However, exposure to airborne mists of these oils can cause irritation of mucous membranes and chemical pneumonitis if there is excessive direct contact of the liquid or aerosol with pulmonary tissue.

The American Conference of Governmental Industrial Hygienists has established a TLV for non-specific airborne oil mist of 5 milligrams per cubic meter of air.

#### ASBESTOS

Asbestos inhalation is a well known potential industrial health hazard which can lead to a characteristic lung fibrosis, termed "asbestosis". Until recently the standard method of sampling asbestos in the workroom was based on the number of particles per unit volume (millions of particles per cubic foot) determined by standard impinger sampling and 100X lightfield microscopy. For several years the Threshold Limit Value (ACGIH) was set at 5 mppcf. In 1969 the Threshold Limits Committee changed the TLV to a tentative value of 12 asbestos fibers per ml for fibers greater than  $5\mu$  in length, as determined by phase contrast microscopy at 430X. In 1970 the Committee reduced the TLV to a tentative value of 5 fibers per ml on the same basis. The British Occupational Hygiene Society has adopted a standard for chrysotile of 2 fibers per ml for 50 years of exposure, 4 fibers per ml for 25 years of exposure, or 10 fibers per ml for 10 years of exposure. These standards are, in the opinion of the experts, the best that can be drawn from existing data. These data are not ideal and, of course, the standards are subject to review in the light of new evidence and improved methods of measurement.

Good industrial hygiene practice suggests controlling exposures below the maximum allowable level, rather than maintenance at the maximum. In this connection, it is appropriate to design current engineering controls for an expected airborne concentration of 2 fibers per ml in

view of the trend downward in the acceptable exposure level and in accordance with good engineering practice.

#### SAMPLING AND ANALYTICAL PROCEDURES

Airborne concentrations of suspended particulates and oil mist were sampled simultaneously at the Ashtabula Plant by drawing air through midget impingers containing isopropyl alcohol at rates of 2 to 4 liters per minute. These impinger samples were analyzed for oil and solids by evaporating the isopropyl alcohol at 60°C, weighing the residue of oil and solids, extracting the oil with benzene, and evaporating the benzene to determine the net weight of the oil residue. The weight of solid material in each sample was determined by difference. Both the dust (solids) concentration and oil mist concentration were calculated in terms of milligrams per cubic meter, mg/m<sup>3</sup>.

A high volume air sample was taken in the tool crib near the center of the plant. This sample was taken to obtain enough material to determine the composition of suspended dust in the general work area. The filter sample was weighed and the mass concentration determined in milligrams per cubic meter. Atomic absorption spectrophotometry was then used to determine the iron content of the sample which was then used as a basis of estimating the concentration of iron oxide dust existing generally in the plant, expressed as mg/m<sup>3</sup> of Fe<sub>2</sub>O<sub>3</sub>.

In line with the latest sampling development specified for asbestos, air samples were collected on pre-weighed cellulose ester membrane filters by using Mine Safety Appliance battery-operated samplers. At the conclusion of a sampling period the filter head was removed and carried to the office area where the filters were carefully transferred to sealed containers for transport back to the laboratory of George D. Clayton & Associates.

The method of counting asbestos fibers was that used by the U.S. Public Health Service for the enumeration of asbestos dust on membrane filters. The description of this method by G. H. Edwards and J. R. Lynch appeared in Ann. Occup. Hyg., 11, 1-6 (1968).

After weighing, sections of the sample are mounted on standard microscope slides using a high viscosity solution of membrane filter material in a 1:1 mixture of diethyl oxalate and dimethyl phthalate to render the filter transparent.

The asbestos fibers which lie on the surface of the filter are counted with phase contrast microscopy (as specified by the tentative Threshold Limit Value) using 10X eyepiece and a 40X phase contrast objective.

Ten fields selected at random on the sample are counted and fibers greater than  $5\mu$  and  $10\mu$  are recorded. Any particle having an aspect ratio of 3 or greater is considered to be a fiber.

#### RESULTS OF STUDY

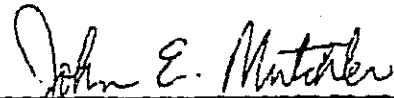
Results of the airborne particulate measurements and airborne oil mist concentrations are summarized in Table 1. Iron oxide is expressed as  $\text{mg/m}^3$  of  $\text{Fe}_2\text{O}_3$ . The results of the asbestos fiber sampling are summarized in Table 2. Examination of these data indicates that the concentrations of non-specific total dust, iron oxide and oil mist are well within acceptable limits throughout the plant. At the projection welding machines where the highest iron oxide concentration would be expected, the total dust concentration of only  $1.38 \text{ mg/m}^3$  clearly indicates that the iron oxide level would be very much below the acceptable level of 5 milligrams per cubic meter.

Table 2 indicates that the total dust exposures are higher than recommended levels at the Gardner grinding machines and assembly station at the permafuse bonding oven, but that in these and all other areas where the brake linings are being bonded, riveted and sized, the concentrations of asbestos fibers appear to be within acceptable levels.

#### CONCLUSIONS AND RECOMMENDATIONS

On the basis of the samples collected during this brief industrial hygiene study at the Ashtabula Brake Plant of Rockwell-Standard Company, there is no evidence of inhalation hazards to workers in those operations surveyed. However, it is recommended that local ventilation systems at the Gardner grinders be inspected, cleaned and modified to provide better capture and reduce the total dust concentration in the grinders' breathing zone.

This report prepared by

  
John E. Mutchler, P. E.  
Chief, Engineering Services

## Material Total Dust, Iron Oxide, Oil Mist

TABLE 1  
GEORGE D. CLAYTON & ASSOCIATES, INC.  
INDUSTRIAL HYGIENE SAMPLING SUMMARY

[illegible]

RD 00582

TABLE 2  
GEORGE D. CLAYTON & ASSOCIATES, INC.  
FIBER SAMPLING SUMMARY

ROCKWELL-STANDARD  
Plant Ashtabula, Ohio

Fibrous Material ASBESTOS

| 1970<br>Date | Sample<br>No. | Description                                                  | Sampling<br>Period |       | Sample<br>Weight<br>mg | Sample<br>Volume<br>liters | Concentration<br>Fibers/ml |          |           |
|--------------|---------------|--------------------------------------------------------------|--------------------|-------|------------------------|----------------------------|----------------------------|----------|-----------|
|              |               |                                                              | Start              | Stop  |                        |                            | mg/M <sup>3</sup>          | >5 $\mu$ | >10 $\mu$ |
| 9-15         | 3300          | Assembly at permafuse                                        | 10:37              | 11:53 | 0.43                   | 32                         | 13.4                       | 0.44     | 0.18      |
|              |               | bonding oven                                                 |                    |       |                        |                            |                            |          |           |
| 9-15         | 3301          | Assembly at fixed bonder                                     | 10:39              | 11:18 | 0.41                   | 78                         | 5.26                       | 0.10     | 0.03      |
| 9-15         | 3302          | Brake shoe lining grinder<br>near overhead conveyor-Dept. 30 | 10:44              | 11:38 | 0.30                   | 105                        | 2.86                       | 0.05     | 0.02      |
| 9-15         | 3303          | Gardner shoe lining grinder<br>Dept. 30                      | 11:24              | 11:55 | 0.40                   | 62                         | 6.45                       | 5.95     | 3.65      |
| 9-15         | 3304          | Shoe machining foreman's desk                                | 11:43              | 13:12 | 0.47                   | 169                        | 2.78                       | 0.08     | 0.06      |
| 9-15         | 3305          | Desk between tool crib and<br>Gardner grinder                | 12:09              | 12:53 | 0.24                   | 88                         | 2.73                       | 0.07     | 0.05      |
| 9-15         | 3306          | Gardner grinder during<br>bag filter shaking (one/day)       | 12:32              | 12:37 | 0.37                   | 10                         | 37.0                       | 10.69    | 5.12      |
| 9-15         | 3308          | Gardner shoe lining grinder                                  | 12:51              | 13:01 | 0.35                   | 20                         | 17.5                       | 1.06     | 0.8       |
| 9-15         | 3309          | Dept. 30<br>Desk adjacent to riveter                         | 13:00              | 13:46 | 0.43                   | 92                         | 4.67                       | 0.07     | 0.03      |

RD 00583

**GEORGE D. CLAYTON & ASSOCIATES, INC.**  
**FIBER SAMPLING SUMMARY**

Plant  
ROCKWELL-STANDARD  
Ashtabula, Ohio

[illegible]

RD 00584

# INVOICE

GEORGE D. CLAYTON & ASSOCIATES, INC.

- ENVIRONMENTAL HEALTH CONSULTANTS -

25711 SOUTHFIELD ROAD • SOUTHFIELD, MICHIGAN 48075

TEL.: 313/352-3120

RECEIVED

NOV 9 1970

SOLD  
TO

Rockwell-Standard Company  
Clifford at Bagley  
Detroit, Michigan 48231

No 1249

Attention: Mr. J. H. Florip

CUSTOMER'S ORDER NO. None

TERMS: Net 30 days

DATE Oct. 30, 1970

FOR PROFESSIONAL SERVICES in connection with the report dated October 20, 1970, of an industrial hygiene survey conducted at the Ashtabula, Ohio Brake Plant on September 15, 1970.

AMOUNT

## Field work

J. Mutchler September 15, 1970

One man-day at \$200.00 per day

\$200.00

## Travel and subsistence

20.52

## Evaluation and report writing

One man-day at \$200.00 per day

200.00

## Laboratory analyses

12 Determinations for total weight at \$5.00 . . . 60.00

12 Asbestos fiber counts at \$25.00 . . . 300.00

1 Determination for iron at \$7.50 . . . 7.50

5 Determinations for oil mist at \$5.00 . . . 25.00 392.50

\$813.02

RD 00585

Internal Letter

North American Free Trade

Date . December 7, 1970

No.

TO . F. J. Griffiths  
Address . Ashtabula

FROM . J. H. Florip  
Address . Detroit

Phone . Ext. 581

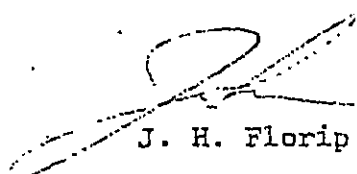
Subject . ENVIRONMENTAL STUDY

Enclosed are two copies of the study conducted September 15. I must apologize for holding them and the invoice since November 9, but I was hoping to deliver them myself.

In general, we have no problems with asbestos, which was my major concern. We do have excessive levels of nuisance dust in the brake shoe grinding areas.

A check of the ventilation system and house-keeping in these areas should be all that is required.

If you have any questions, please contact me at once.



J. H. Florip

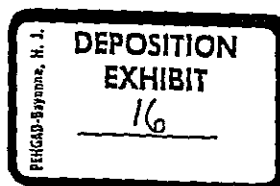
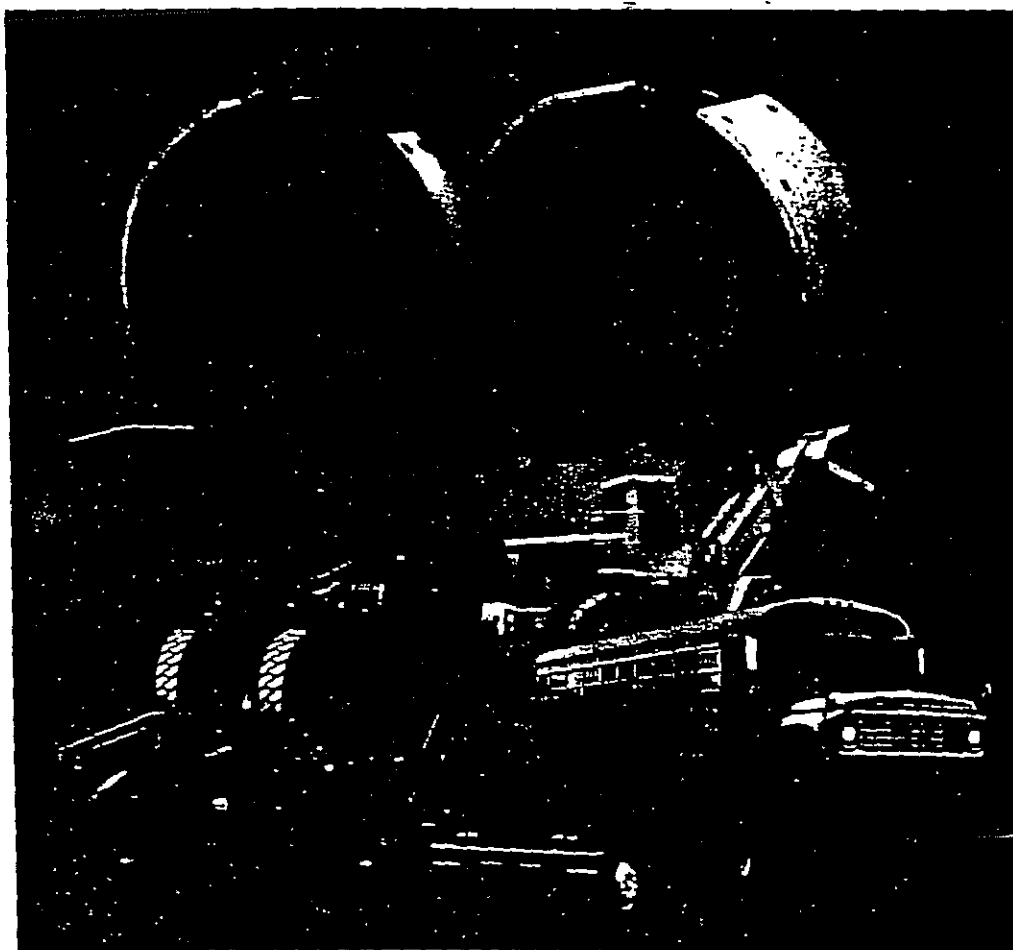
JHF/jl

Enclosure

RD 00586

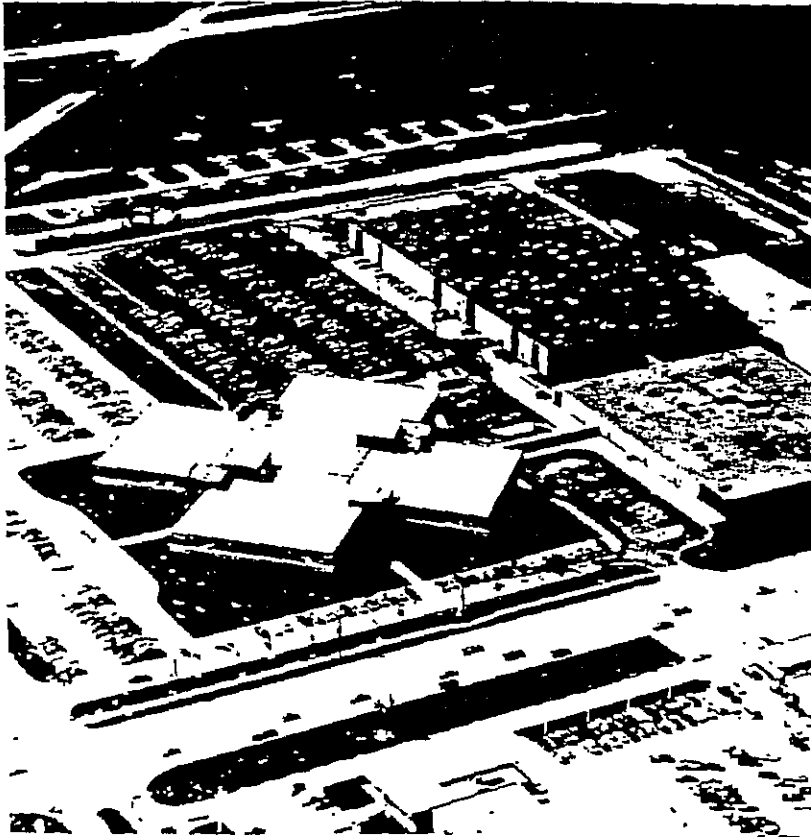


# HOLDMASTER<sup>®</sup> MECHANICAL BRAKES



RD 00888

# ROCKWELL AUTOMOTIVE



Designed and Tested by one of the World's Largest Independent Manufacturers of Truck Components...

Rockwell International has been in the business of developing and manufacturing brakes since 1913 when it introduced the first internal expansion brake for commercial vehicles.

The Rockwell International research, test and development center, the most modern independent facility of its kind in the world, assures the production of quality heavy-

duty vehicle components to meet the industry's most exacting requirements. At this facility, Holdmaster Mechanical Brakes and other heavy vehicle brake, axle and driveline products are developed, tested and evaluated in a continuing program designed to provide the transportation industry - both on and off-highway - with reliable components for trucks, tractors, trailers, buses and special-purpose heavy-duty vehicles of all kinds.

# DUPLEX

Rockwell International's tradition of excellence in heavy-duty vehicle components is carried on by the Holdmaster Duplex Cam Mechanical Auxiliary (DCM) Brake and Duplex Lever Mechanical (DLM) Brake.

Rockwell Duplex brakes have been on the road for more than 20 years, and off the road too. In the construction, logging and mining industries these brakes have performed with such consistent quality that they have remained virtually unchanged in design for many years.

Both models are designed for use on a broad spectrum of applications:

- Front End Loaders
- Graders
- Medium Trucks
- Off-Highway Haulers
- Road Rollers
- Rough Terrain Cranes
- Various Stationary Machinery

The Holdmaster series offers simplicity and reliability. Consisting of only eight different parts, Rockwell DCM Brakes and DLM Brakes eliminate the need for a large parts inventory. The brakes are easy to install in just minutes, and require no special tools.

# HOLDMASTER® DLM

## LEVER MECHANICAL PARKING BRAKE

### NO ADJUSTING

With the DLM brake there is no tricky assembly. Simply remove the two springs and lift out the shoes. The brake reassembles in minutes, and no adjustments need be made.

The DLM brake has fewer parts to wear and to stock. Less inventory and less maintenance, plus long service life, combine to give reliable braking at low cost.

### SIMPLICITY

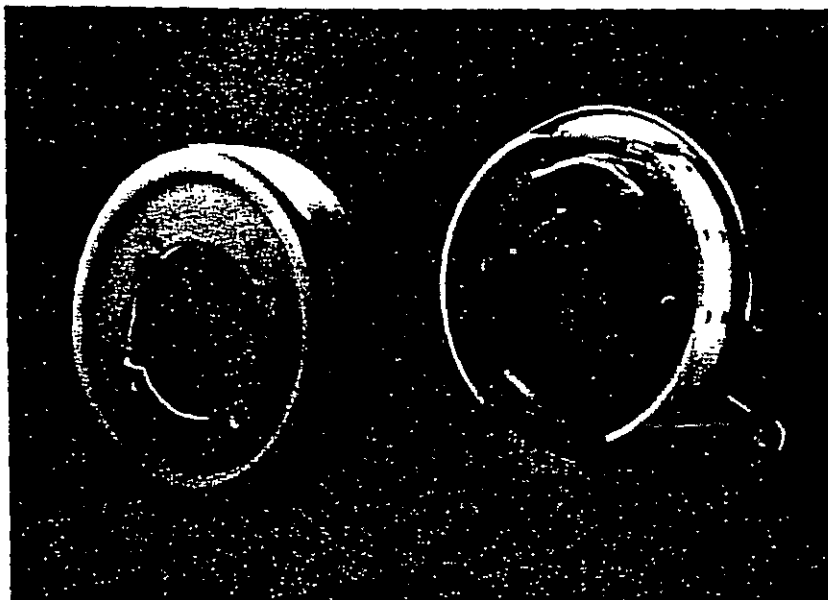
Only eight simple parts make up a DLM brake. Shoes and springs are completely interchangeable. For instance, brake shoes can be "slapped in". The position of the shoes makes no difference. Makes stocking simple too. Only six different types of parts are required to completely replace the brake.

### NO LUBRICATION REQUIRED

Maintenance has been reduced to the absolute minimum. No skilled help is needed because the DLM is "foolproof" to service and install. No inside adjustment and no lube are necessary.

### BALANCED DESIGN

The balanced design provides for equal torque in both directions. Balanced pressure makes both shoes do the same amount of work, so brake linings have uniform wear patterns for consistent, smooth performance.



# DLM SPECIFICATIONS

| Brake drum area                           | 34 sq. in.      | 47 sq. in.      | 84 sq. in.      |
|-------------------------------------------|-----------------|-----------------|-----------------|
| Brake lining area                         | 20 sq. in.      | 31 sq. in.      | 55 sq. in.      |
| Brake lining thickness                    | 3/16"           | 1/4"            | 1/4"            |
| Brake weight (approximate) ①              | 7 lb. 13 oz.    | 18 lb. 14 oz.   | 36 lb. 2 oz.    |
| Overall diameter (backing plate)          | 8-3/32"         | 11-3/64"        | 14-35/64"       |
| Outside diameter (brake drum)             | 7-41/64"        | 10-15/32"       | 13-55/64"       |
| Inside mounting clearance (backing plate) | 4-1/2"          | 6-1/8"          | 8-1/2"          |
| Maximum flange clearance (brake drum)     | 5-3/8"          | 8"              | 8-1/2"          |
| Brake center line to mounting surface     | 1-1/64"         | 1"              | 1-9/32"         |
| Brake mounting to drum mounting           | 1-53/64"        | 2-5/32"         | 2-1/2"          |
| Lever stroke ②                            | 1-3/16"         | 1-3/8"          | 1-15/64"        |
| Max. lever input                          | 700 lbs.        | 1200 lbs.       | 1700 lbs.       |
| Max. torque output                        | 10,000 lb. ins. | 25,000 lb. ins. | 36,000 lb. ins. |

① Including drum

② When lining is completely worn

# HOLDMASTER® DCM

## CAM MECHANICAL BRAKE

Rockwell's Holdmaster DCM Auxiliary Brakes have been on the job since 1959, offering efficient and reliable parking and emergency braking.

As a parking brake, the Holdmaster provides equal torque in either direction.

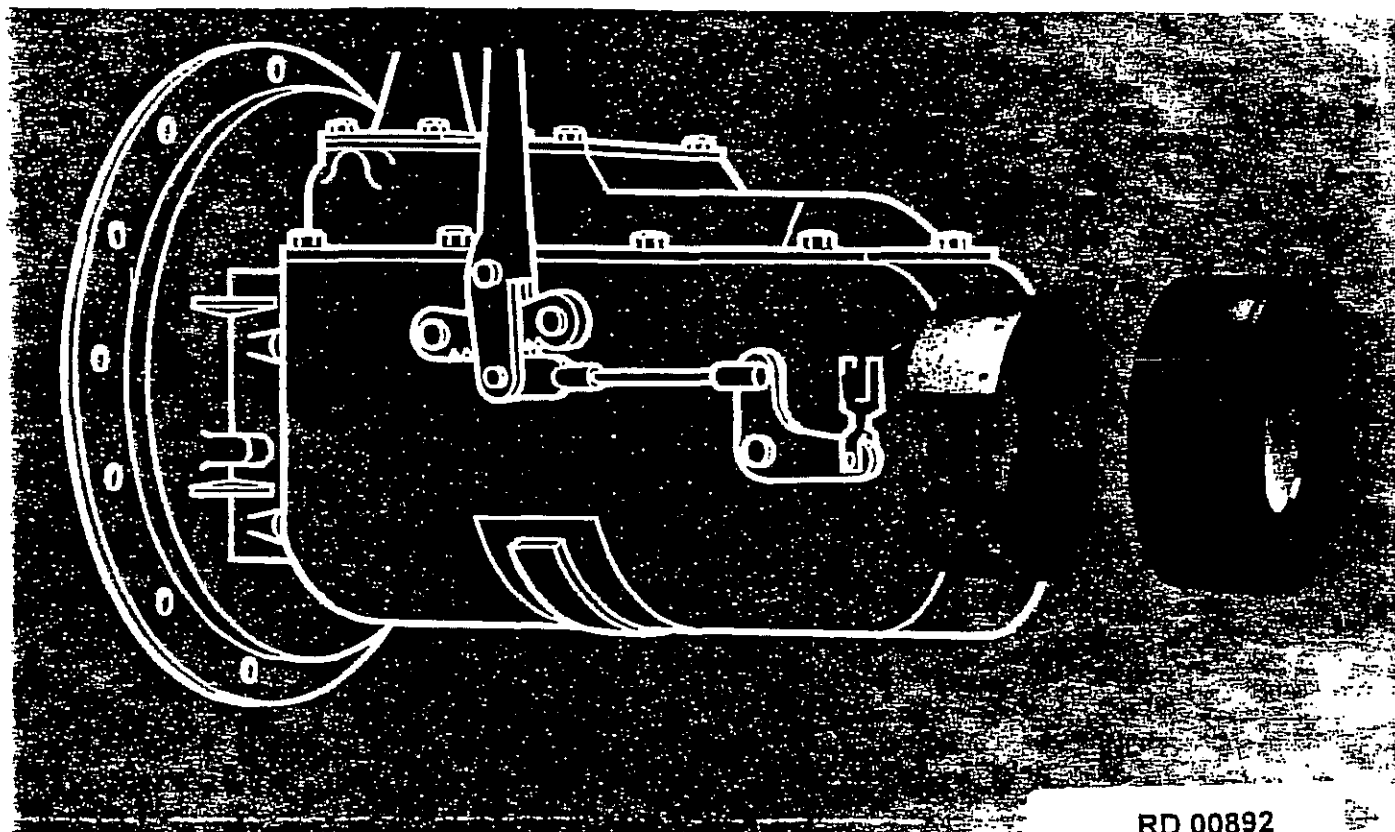
For emergency stops, the balanced design of Holdmaster Brakes divides the input force between both shoes. Stops are more controlled compared to unbalanced designed brakes, providing protection against damage to vehicle chassis and drive components.

The balanced design also extends lining life and reduces transmission bearing stress.



Along with these advantages, the DCM auxiliary brakes are easy to install, and with only eight different parts, they reduce inventory requirements

substantially. Simple, external linkage adjustment means easier, faster maintenance when required.



RD 00892

# DCM HEAVY-DUTY APPLICATIONS

The DCM brake is designed for heavy-duty applications, but is of a lightweight, rugged construction, giving increased braking capacity per pound.

The cam and lever construction minimizes input force losses. Brakes are applied when the lever moves in either direction.

DCM brakes feature central mounting, reducing overhang and minimizing bending stress on the supporting member.



## DCM BRAKE SPECIFICATIONS

|                                      |             | 83 sq. in.                 | 111 sq. in. | 138 sq. in. |
|--------------------------------------|-------------|----------------------------|-------------|-------------|
| Brake Lining Area                    | 69 sq. in.  |                            |             |             |
| Brake Lining Thickness               | 3/16"       | 1/4"                       | 1/4"        | 1/4"        |
| Brake Weight (approx.)               | 12 lbs.     | 17 lbs.                    | 19 lbs.     | 21-1/2 lbs. |
| 10" Drum Steel Stamping              | 14 lbs.     | —                          | —           | —           |
| Drum Weight Composite (approx.)      | —           | 25 lbs.                    | 30 lbs.     | 35 lbs.     |
| Brake Centerline To Mounting Surface | .526        | .515                       | .515        | .515        |
| Brake Lever Length (standard lever)  | 5-3/8"      | 4-1/2" min. to 7-1/2" max. |             |             |
| GVW Ratings                          | 27,500 lbs. | 28,000 lbs.                | 37,000 lbs. | 46,000 lbs. |



**Rockwell International**

Automotive Operations  
2135 West Maple Road  
Troy, MI 48064  
(313) 435-8396