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FRICITION MATERIALS STANDARDS INSTITUTE, INC.

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May 9, 1978

Mr. E. M. Fenner
Johns-Manville Sales Corporation
Ken-Caryl Ranch
Denver, Colorado 80217

Dear Ed:

I'm writing this based on a phone conversation I had yesterday with Mr. Harry Wagner, Chairman of our Asbestos Study Committee. Harry called about the status of our work practices booklet that we were preparing for the friction material industry. He indicated that I should send you some photographs and drawings to indicate the type illustrations we would want in the work practices booklet.

I'm suggesting illustrations based on photographs and diagrams that have appeared in other publications including the Abt Associates draft for the Department of Labor. However, there are many problems with the Abt Associates work and I will call those to your attention in the illustrations that I enclose. Essentially we are calling for five illustrations which I have listed as Exhibits I, II, III, IV and V. Whether they will be in this sequence, or whether they will all be used, has not really been decided.

EXHIBIT I--"Use Dust Collection Equipment When Machining"

The Abt Associates illustration shows a mechanic holding a piece of material for grinding against a sander. The illustration of the grinder or sander is ridiculous, as people do not grind brake linings in this fashion. Rather, lined brake shoes are fastened in a fixture, as shown by the illustrations of the two grinders below the Abt illustration. One uses a horizontally mounted motor to drive a large wheel, and the lined shoe is fed into the wheel, and the fixture is rotated to arc the lining. Beneath that illustration is one showing a vertical shaft motor with the grinding wheel driven by belts and the lined shoe is similarly fed into the grinding wheel, with controls at the front of the machine. Both of these grinders are used in brake shops. There are other types of grinders, but I think that the bottom two should be right for this illustration. Of course, exhaust pick-ups should be shown in the area where the lined brake shoe meets the grinding wheel.

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EXHIBIT II—"Do Not Use an Air Hose for Cleaning"

The use of an air hose for cleaning brakes has been a common practice and is probably still in wide use today. This is one area where most warnings on the asbestos hazard have hammered "Do not use an air hose for cleaning the brakes." In the upper three illustrations a mechanic is blowing dust from the brake assembly. In one case, the mechanic is using a respirator, but we do not recommend that a mechanic be permitted to blow dust from a brake even while wearing a respirator, because he is contaminating the rest of the work area. At the bottom of that page an illustration is shown with the mechanic starting to assemble two brake shoes to the brake assembly. This is to help an artist visualize the brake which is somewhat concealed because of the poor photographs above.

EXHIBIT III—"Use Vacuum or Wet Cleaning Methods for Cleaning Brakes"

There are two illustrations shown. One shows a mechanic using an industrial type vacuum cleaner to clean around the brake assembly. The other shows a mechanic using a vacuum to clean brake drums. I believe that kneeling on the floor to illustrate the cleaning of a brake drum is somewhat unrealistic as the mechanic is probably not going to take this position. It might be more appropriate to show a brake drum or two on a work bench, or to show a mechanic using the vacuum on the brake assembly. You could refer back to Exhibit II for a better view of the brake assembly.

EXHIBIT IV—"Do Not Sweep in Work Area—Use Vacuum Methods"

The illustrations shown are self explanatory in that an industrial type vacuum cleaner is shown. The idea is to not dry sweep or brush the general work area and to favor a good high filtration industrial vacuum cleaner to properly clean the work area.

EXHIBIT V—"Wear an Approved Respirator If Unable to Avoid Dust"

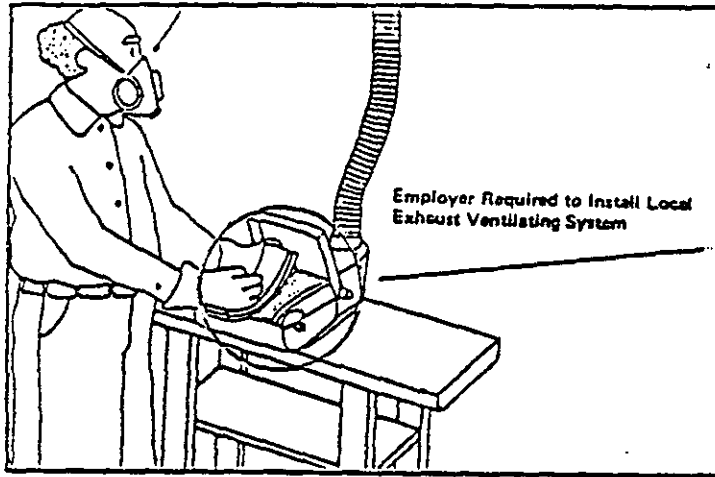
We are asking that the type mask used in 1978 be shown rather than the type shown in some of the Abt illustrations. A worker could be shown standing wearing the mask or handling a set of brake shoes or other type illustration. The point is that we want to avoid illustrating a mask as shown by Abt.

* * * * *

I hope that this material can be of help to an artist in preparing illustrations for our work practices booklet. However, it might be worthwhile to consult someone who is knowledgeable on brakes to go over the artwork. Perhaps

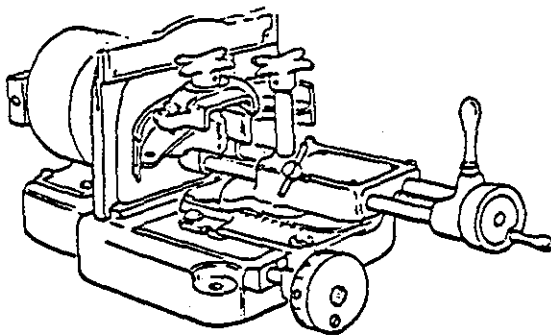
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SEE COMMENTS EXHIBIT V



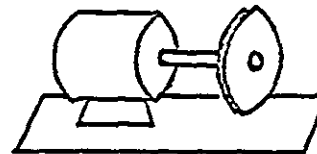
NEED ILLUSTRATION
"USE DUST COLLECTION
EQUIPMENT WHEN
MACHINING"

THE CIRCLED "GRINDER"
IS ABSOLUTELY
RIDICULOUS. ILLUSTRATE
A GRINDER FROM
THE GRINDING EQUIP-
MENT ILLUSTRATIONS
BELOW— SHOW EXHAUST
PICK-UP



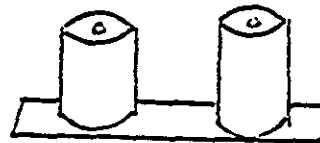
BENCH RADIUS GRINDER
(For grinding proper radius on linings.)

. 02 -



CONVENTIONAL GRINDER
USED IN BRAKE SHOPS SHOWN
AT LEFT — ESSENTIALLY
MOTOR-DRIVEN GRINDING
WHEEL WITH FIXTURE
TO FEED LINED BRAKE
SHOE TO WHEEL FOR
GRINDING

an AMCO Brake Shoe Grinder that
lets you precision grind brake shoes
for correct fit to perfect shaped drums

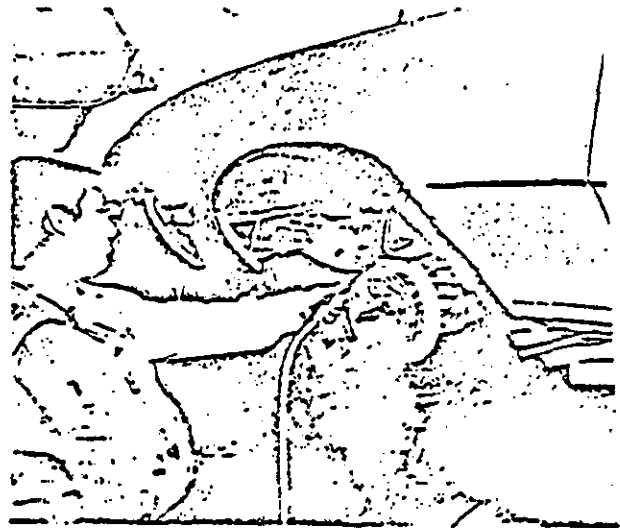
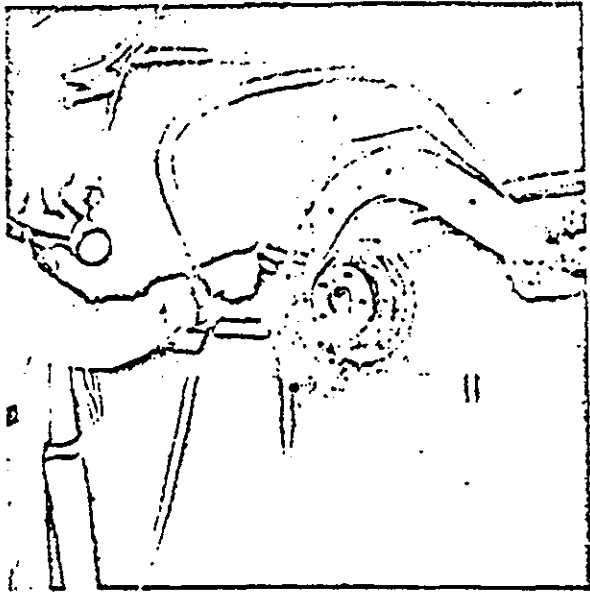


VERTICAL SHAFT MOTOR
DRIVES GRINDING WHEEL
(BELTS BELOW TABLE)
SIMILAR FEED TO ABOVE

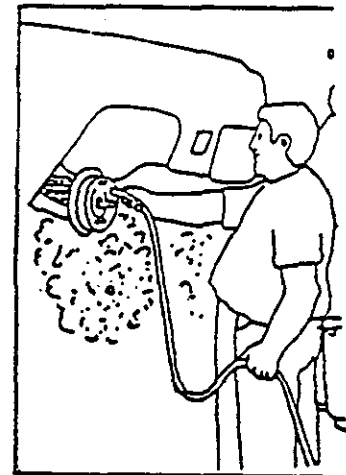
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"USE DUST COLLECTION EQUIPMENT WHEN MACHINING" - 83

EXHIBIT I



THE THREE UPPER ILLUSTRATIONS
SHOW A "DON'T."
"DO NOT USE AN AIR HOSE FOR CLEANING."
EVEN WEARING MASK TO DO SO IS
NO GOOD AS DUST WILL BE BLOWN
AROUND THE WORK AREA.



THIS AT RIGHT IS TO SHOW
MORE DETAIL OF A
DRUM BRAKE — WITH SHOES
BEING PLACED ON BRAKES.



"DO NOT USE AN AIR HOSE FOR CLEANING"

EXHIBIT II

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SEE COMMENTS, EXHIBIT

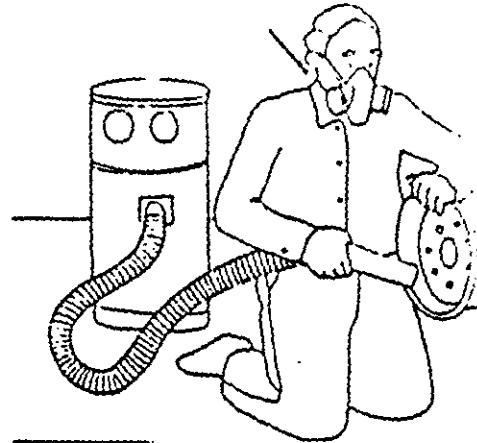
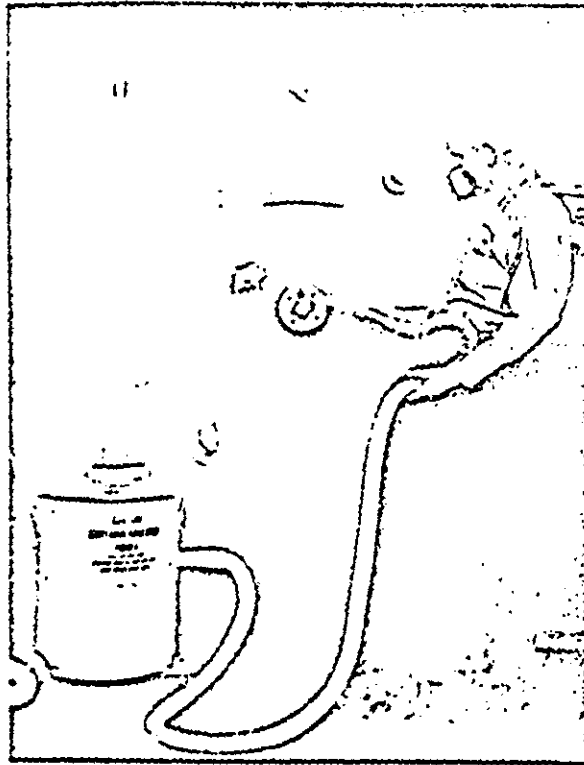


PHOTO AT LEFT SHOWS USE OF VACUUM TO CLEAN
BRAKES ON CAR. ILLUSTRATION AT RIGHT SHOWS
USE OF VACUUM TO CLEAN BRAKE DRUM.
IT IS MORE LIKELY THAT MECHANIC WILL USE
A WORK BENCH FOR CLEANING DRUMS

"USE VACUUM OR WET CLEANING METHODS FOR CLEANING BRAKES"

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EXHIBIT - 11

[illegible]

SEE COMMENTS, EXHIBIT V

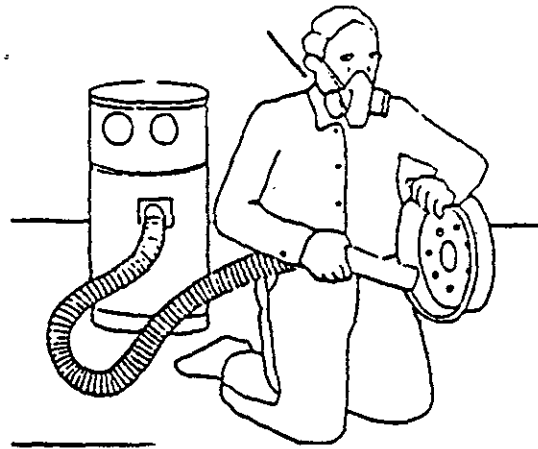
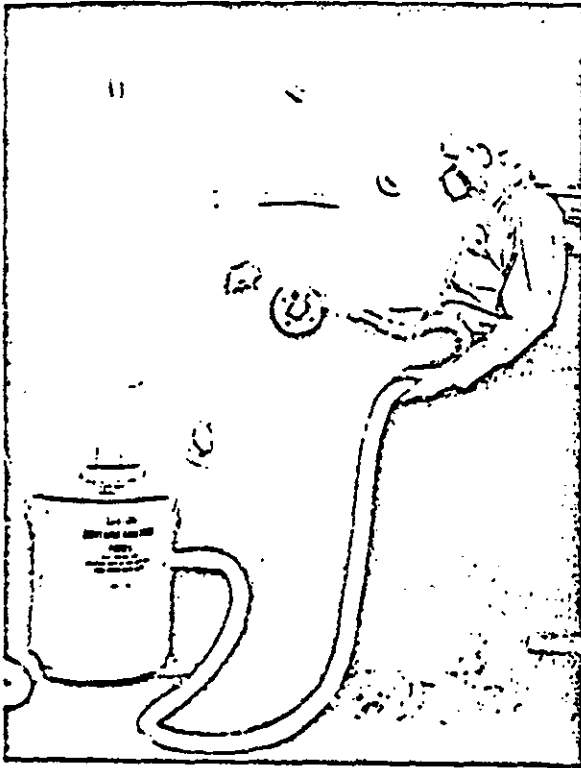


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"USE VACUUM OR WET CLEANING METHODS FOR CLEANING BRAKES"

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EXHIBIT III

SEE COMMENTS EXHIBIT II

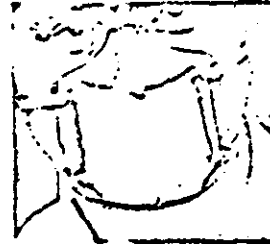


AN ILLUSTRATION — SELF EXPLANATORY — WITH WORKER
USING AN INDUSTRIAL TYPE VACUUM FOR CLEANING
THE WORK AREA.

" DO NOT SWEEP IN WORK AREA — USE VACUUM METHODS "

EXHIBIT IV

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THE MESSAGE IS: "WEAR AN APPROVED RESPIRATOR IF UNABLE TO AVOID DUST"

IT IS IMPORTANT TO SHOW A MASK AS USED IN THE 1970'S — AS ABOVE, OR SIMILAR. ALSO REFER TO PHOTOGRAPHS IN EXHIBITS II AND III. BUT DO NOT ILLUSTRATE WITH THE ART "CARICONS" IN EXHIBITS I, III AND IV.

"WEAR AN APPROVED RESPIRATOR IF UNABLE TO AVOID DUST"

EXHIBIT V

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Mr. E. M. Fenner
Johns-Manville Sales Corporation

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May 9, 1978

Pat O'Hagan who is in Denver, or Stan Lucas who was with J-M several years ago would be of help in this area. We appreciate the J-M offer to help us with the illustrations for this work practices booklet.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE, INC.



EWD/lmc
Encs.

CC: H. H. Wagner, Carlisle

E. W. Drislane
Executive Director

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