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February 23, 1977

Subject: Recommended Procedures for Reducing Asbestos Dust During Brake Servicing

Gentlemen:

As I'm sure you are aware, there have been questions raised concerning exposure to asbestos dust during brake servicing. Actually, what applies to brake servicing might equally apply to clutch servicing, except that ordinarily installers do not drill, cut or grind new clutch facings in the field.

As a result of the concern expressed in several quarters, two committees and our Board of Directors reviewed the problem, and have endorsed the enclosed "Recommended Procedures for Reducing Asbestos Dust During Brake Servicing."

It is felt that these are sound and workable procedures, and we suggest that your publication may wish to give them wider distribution, either in a brief article on asbestos, or in a separate commentary on the subject.

You are free to use these recommendations as you see fit. There is no copyright involved, and it is not necessary to give credit to the Institute. If you wish to give credit, you may.

We believe that distribution of such information is in the best interests of all involved in the brake (and clutch) service business. If you have any questions, please let me know.

Sincerely,

FRICTION MATERIALS STANDARDS INSTITUTE

EWD/lmc

E. W. Drislane
Executive Director

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FMSI 07199

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 snould wear an air purifying respirator, either a throwaway or one with replaceable particulate filter(s), as approved by the mining Enforcement and Safety Administration or NIOSH. It should be worn during all procedures starting with the removal of the wheels and including reassembly.

3. During disassembly, all parts should be carefully placed on the floor to minimize the possibility of creating airborne dust. Dust should first be cleaned from the brake drums, brake backing plates and brake assemblies using an industrial type vacuum cleaner equipped with a high efficiency filter system. After vacuum cleaning, any remaining dust should be removed by using a rag soaked in water and wrung until nearly dry. Under no circumstances should compressed air or dry brushing be used for cleaning.

4. Of extreme importance are the precautions which must be taken during machining of friction material. This is the operation in brake servicing when exposure to asbestos dust is at its highest. In addition to the approved respirator, there must be local exhaust ventilation such that the worker exposures are maintained at least below the 1976 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 Breathing Dust
Breathing Asbestos Dust May Cause Serious Bodily Harm

All asbestos waste should be disposed of in accordance with the OSHA asbestos regulation. During removal of vacuum bags, an approved respirator, as described in (2) above should be worn.

6. All floor cleaning in areas where brakes are repaired should be done with the high efficiency industrial vacuum cleaner as described in (3) above. Under no circumstances should dry sweeping take place. Grinding (arcing) machines should also be cleaned with such a vacuum cleaner and any remaining dust wiped with a damp cloth. An approved respirator, as described previously should be used during this cleaning.

7. Although adherence to the above procedures should minimize any contamination of work clothing, it is necessary that the appropriate sections of the OSHA regulations on asbestos be followed when ceiling levels on asbestos dust exceed current standards. This could involve special clothing, change rooms, etc. At the very least the work clothes should not be taken home but should remain at work for industrial laundering.

8. Proper hygiene practices will help minimize exposure to asbestos dust. Wash thoroughly before eating and do not eat in the work area. Remember, smoking is harmful to the health, and smoking coupled with breathing asbestos dust is extremely dangerous.

CAUTION: DO NOT BREATHE ASBESTOS DUST

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