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# Exclusive! Beware of Brake Dust!

By Bob Cerulli

MOST MECHANICS GO ABOUT the ... of cleaning brake and clutch dust know ... hat while doing the job they are inhaling some ... his dust. It has been general knowledge that lining and pads are made on the average of 50 to 60 p... nt asbestos. However, past studies have led ... to believe that the asbestos fiber was locked into other materials in the lining and that a change due to the high heat of friction took place during braking or clutch application. This transformed the asbestos fiber into a non-toxic, non-fibrous material called forsterite. The conclusion then was that the dust was harmless.

**Studies conducted by the Mt. Sinai** School of Medicine in New York City indicate that brake dust may actually contain an average of 3 to 6 percent asbestos with some tests showing concentrations as high as 15 percent. Samples of air were taken under actual working conditions in a taxi-fleet garage and a N.Y. Dept. of Sanitation truck repairshop. These samples were analyzed by electron microscopy and revealed levels of airborne asbestos considerably higher than those permitted by federal law. It should be noted that during the testing in the truck repairshop grinding of brake shoes was carried out.



Fig. 1. REMOVE BRAKE DUST with high-efficiency filtered industrial vacuum cleaner. Wear air-purifying respirator.

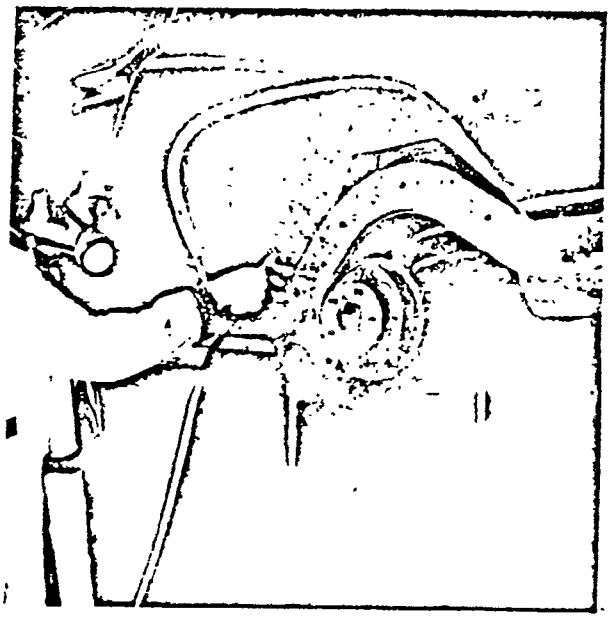


Fig. 2. NEVER BLOW OFF dirt from a brake assembly with an air gun. After vacuuming, use a nearly-dry damp rag.

**The work of the researchers** at Mt. Sinai was discussed at a meeting of the National Institute for Occupational Safety and Health (NIOSH) where the results of physical examinations given to 90 men who had been working as automobile and truck-brake repairmen for a period of 10 years were examined. Of this small group the doctors stated that X-ray examinations showed that over one-quarter had signs of abnormalities consistent with asbestosis disease; the same tests revealed that one quarter had also restricted pulmonary (lung) functions. This evidence prompted NIOSH to issue an alert to the automotive repair industry indicating that while the full extent of asbestos-related disease in brake-service personnel is not known because this occupational group has not been systematically studied up to now, enough scientific data has been accumulated to point out the need to start immediate control measures so that the health hazard of asbestos can be minimized.

There is no doubt that a health hazard exists and that exposure to asbestos fibers can increase the risk

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It is gratifying to note that a great deal of money and time is being spent by brake and clutch lining manufacturers to deal with the problem. In addition to OSHA's specific requirements detailed, one firm has included useful extra precautions on the warning label on every box of brake and clutch facings it sells. This same firm recommended procedures for reducing asbestos dust during brake service in their service manuals and training film.

In the final analysis you are the only one who can protect yourself from the potential dangers of exposure to asbestos dust. If you wear a respirator or mask, use an approved brake vacuum cleaner, dispose of the dust in the prescribed manner, vacuum the floors and use good common sense about house cleaning, there is little to fear from the presence of asbestos dust. The few extra precautions involved could prevent you from contracting a very painful if not fatal disease. Start tomorrow to clean up your act . . . you owe it to yourself, your family and your fellow workers. ■

## How to Promote Your Service Department

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the clinic will be favorably impressed and may become customers in the future. A clinic of this type invariably uncovers the need for much service work, and the dealer should get a substantial share of this work.

The best promotion won't be effective unless the service department can deliver what it promises. Among the most frequent customer complaints are: work not done when promised, cars not repaired properly and high cost of repairs. Most dealerships will make good on a job if the work is performed improperly or a part is defective. These "warranties" are usually informal in nature, but some dealers have plans that are specific and widely advertised.

Your shop equipment can also be an important merchandising tool. An optical wheel alignment machine, for example, projects a "picture" of the front-end setup of a customer's car. Few owners understand the pattern of adjustments, but most are impressed by the dealer's interest in such sophisticated equipment and technicians in its operation.

Finally, never forget that mechanics/merchandisers are your shop personnel. They should not be high-pressure salesmen. It is important that they greet the customer with their courtesy and sincerity and back up that impression with performance. Your investment in management and promotional plans will pay off. ■