

Exhibit A

PLAINTIFF'S EXHIBIT

MAR-36

ASBESTOS EXPOSURE -VS- BACK-SHOP BRAKE
SHOE GRINDING

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This report outlines the merits and limitations of fixed anchor grinding and discusses the consequences of using pre-arc'd shoes in the back shop as an alternative.

Also, a summary of the key points to be considered relative to the current O. S. H. A. asbestos exposure standards is presented followed by comments on the impact these standards will have on installing brakes at Sears.

It will be seen that even with the elimination of back shop grinding in the stores, Sears will not be relieved of the responsibility of establishing the proscribed controls and procedures to maintain proper exposure levels in the brake area.

FIXED ANCHOR GRINDING

Sears currently offers one of the best professional brake jobs available; and at a competitive price. A good complete brake job should include fixed anchor grinding if come-backs are to be held to a minimum.

There are several benefits to be gained from fixed anchor grinding:

1. Maximum lining contact is guaranteed regardless of machined drum diameter. This means less high temperature fading which results in repeated safe, sure stops.
2. Full lining contact during panic stops is provided through "toe-and-heel" clearances automatically contoured into the shoes. These clearances also help to minimize the effects of minor irregularities that arise from the brake job. Thus, come-backs due to noise, chatter, pulling or grabbing are reduced considerably.
3. Since the secondary shoe does most of the work in a "servo" type brake system, it must be ground to a "brake applied" position to insure that full lining contact is attained as the shoe rotates against the anchor. Fixed anchor grinding provides this proper contour.

Some of the limitations associated with fixed anchor grinding are as follows:

1. Grinding generates asbestos dust in quantities that present O.S.H.A. control problems. (This matter is addressed later in more detail.)
2. Come-backs can increase if grinding is not done properly or if the equipment is not properly maintained and calibrated.
3. It takes approximately ten minutes more time to complete a brake job if the shoes are ground.
4. Unless O.T.C. shoes are marketed with an all-in-one concept, dual inventories must be stocked.

In summary, fixed anchor grinding insures the best possible brake job by allowing for variances in drum diameter, brake job irregularities, anchor pin location and brake shoe arc. If the grinding is done properly, come-backs due to noise, pulling, grabbing, etc. are virtually eliminated. However, current and future government regulations could force Sears to abandon grinding totally.

PRE-ARCED SHOES

A logical alternative to grinding is to use pre-arc'd shoes. However, using these type shoes as they are presently manufactured would present several problems:

1. Full lining contact is not achieved using pre-arc'd shoes in an over size drum. This can result in rapid overheating and increased wear as well as a spongy pedal due to the flexing of the shoe.
2. Come-backs due to noise and pulls would probably offset any savings in time gained from not grinding.
3. Since all of the current production of O.T.C. is bonded, complaints from brake installers would most likely occur because O.E. riveted shoes were being replaced by bonded. However, this would not represent a safety problem.

If the current or future O.S.H.A. limits become the overriding factor in determining whether or not grinding should be done, pre-arc'd shoes could be one of the logical answers.

Another factor to consider is that the increasing trend to front disc brakes on most American cars might lead to a lessening need for custom ground rear shoes. Nevertheless, four wheel drum brake cars will be in Sears' Auto Centers for many years to come. If only four wheel drum equipped vehicles were candidates for custom grinding, it would be necessary to stock a dual inventory of over size shoes and pre-arc'd.

IMPACT OF ASBESTOS LEGISLATION

The following represents a summary of the key points in the current O.S.H.A. standards as they relate to brake work at Sears. It should be kept in mind that the cleaning of backing plates is a source of asbestos dust as well as grinding.

PERMISSIBLE EXPOSURE CONCENTRATION - The eight hour time weighted average exposure level should not exceed two (2) fibers, longer than five micrometers, per cubic centimeters. (Effective July 1, 1976)

MAXIMUM OR CEILING CONCENTRATION - The maximum permissible exposure level at any time should not exceed ten (10) fibers, longer than five micrometers, per cubic centimeter.

METHOD OF COMPLIANCE - Some form of local ventilation should be used that is designed, constructed, installed and maintained in accordance with prescribed standards and will reduce concentration levels to within permissible concentrations if feasible.

PERSONAL PROTECTIVE EQUIPMENT - Respirators and/or protective clothing must be provided where concentration levels exceed the standards.

MONITORING - Concentration must be monitored in the breathing zone of the workers and in work areas according to prescribed methods.

CAUTION SIGNS AND LABELS - Caution signs must be posted in regulated area warning of asbestos hazards. Labels must be affixed to all containers of asbestos waste.

RECORDS - Exposure records must be maintained and retained for twenty years. Medical records for each employee working in a regulated area must be maintained and retained for twenty years.

MEDICAL EXAMINATIONS - Annual medical examinations must be provided for each employee working in a regulated area.

All of the above standard highlights are currently in effect except the permissible exposure level. The present standard is for a concentration of five (5) fibers per cubic centimeters. The two (2) fiber limit will go into effect on July 1, 1976.

Two revisions to this regulation are currently under consideration. The time weighted and ceiling concentration levels would be reduced to 0.5 fibers per cubic centimeter and five fibers per cubic centimeter respectively. Also, retention of records would be increased to forty years. It is expected that these revisions will not be considered until after the up-coming political elections.

BRAKE EQUIPMENT MANUFACTURER REACTION

Ammco has submitted reports documenting the fact that the various models of brake grinders equipped with a properly maintained dust collector will meet the current O. S. H. A. standards. However, no plans have been made to test their system against the July 1 two fiber standard. Yet, they feel that there will be no problem.

Ammco has also designed a system for cleaning backing plates that utilizes an air operated solvent spray gun (25 psi). A sample of this unit will be evaluated at Carol Stream.

Per-Lux, Inc. is currently marketing a device that fits over the backing plate and is attached to an industrial vacuum. Dry asbestos dust is dislodged with an air jet and sucked into the vacuum. This unit will be evaluated on April 29, 1976.

One more item deserves mentioning. Research is still in progress regarding the long term effects of exposure to various concentrations of asbestos dust. The National Institute for Occupational Safety and Health (N.I.O.S.H.) has recommended the following interim procedures for minimizing asbestos dust exposures in brake shops:

1. An area shall be designated for all brake work and posted with an asbestos exposure warning sign.
2. An approved respirator should be worn at all times starting with the removal of the wheels and including re-assembly.