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BRAKE LININGS DONE TO A FINE TURN

Plenty Cooking, Little Eating at Troy Division

There's never any need to ask what's cooking over at Friction Materials division, Troy, N. Y. It's always the same thing: automotive brake linings.

The division employs three shifts of 21 cooks apiece who bake about 275,000 linings a day. Approximately 39,000 linings are in the ovens at any one time.

Cooks are officially called cure oven operators. They work with three horizontal and eight vertical ovens. All horizontal ovens and seven of the vertical ovens are used to cook passenger brake linings. One vertical oven is reserved for truck brake linings.

Bent First

The linings come to the ovens after having been bent into the arc form of a brake shoe. The cooks then insert them into aluminum curing molds which perform the same function as a cookie mold: that is, they help their contents keep in shape.

The cooks then place the linings in rectangular frames. These are put on a conveyor belt, which takes the linings on a leisurely tour of the insides of the ovens.

The ovens are kept at a temperature of about 415 degrees F.

Passenger car brake linings are heated for approximately 2½ hours and cooled for one hour before being removed from the curing molds. Brake linings in the truck oven are cooked for 3½ hours and cooled for 1½.

Cleaned Next

After the linings have cooled they are removed from their curing molds and sent to the grinding area for cleaning.

The actual recipe for a Friction Materials brake lining, though not quite as savory as that of a cookie, is considerably more functional: It enables the lining to withstand the extreme conditions encountered by today's high-power brakes.

Brake lining ingredients include resin, asbestos, friction dust, pulverized limestone, ground rubber, carbon black, brass chips and barytes.

The specific content of an individual brake lining depends on the operating characteristics of the brake in which it will eventually reside. For instance: vehicular load, drum diameter, rotating speed and drum composition.



VERTICAL OVEN — Cure oven operators John McCormick (left) and Leo Richards place brake linings into curing molds on racks which are drawn through the oven on a conveyor belt. Upon completion of the baking cycle, the molds continue on down through a pit, where they are sprayed with cold water, and returned to the operator to be emptied and refilled.



HORIZONTAL OVEN — Cure oven operator Maurice Collins places soft pre-bent compression-molded brake linings into curing molds in preparation for baking. Powder prevents the linings from sticking to the molds.