PLAINTIFF'S EXHIBIT
FD-739

A04 VEHICLE SAFETY

Friction Materials (R-120 R)

1. 1975 Disc Brake Lining Development

The test data for our experimental organic linings which were given the FMVSS 105 test on a disc/drum Lincoln vehicle have now been reviewed. Our linings were inadequate in that high fluid displacement resulted in the brake pedal reaching the floorboard on some high speed, high energy stops. Despite this deficiency, our lining was stated to be the best balanced with regard to effectiveness for disc/drum brake systems of all linings tested to date. Most of the Federal braking requirements were met in this first car test. The fluid displacement problem was due to lining compressibility rather than lining wear. Processing changes have been effected since the vehicle test which reduce fluid displacement by over 20%. Optimal processing conditions should reduce fluid displacement another 10% to assure adequate brake pedal reserve.

In addition to the promising lining results, the vehicle tests established that a single station brake dynamometer can be used to predict vehicle braking performance for high torque stops. Prior to the vehicle test, our dynamometer tests had indicated that our lining would provide a good match with the Lincoln rear drum brake, but it appeared marginal in fluid displacement properties.

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2. Brake Lining QC Procedure

We were requested by Car Engineering to evaluate an IBM System 7 computer that Bendix Corp. has installed for automatic data reduction of brake lining PGC pyrograms and to determine if the system is adaptable to the current brake lining specifications. The computer program, developed jointly by Bendix and IBM, essentially duplicates the specified manual-disc integrator procedure. Specific

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