



FRICION MATERIALS RESEARCH

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August 31, 1979

TO: R. A. Pearce

SUBJECT: Cadillac Rear Lining, 734-161/38-27E

Objective: Perform comparative tests for compositions 734-161 (P)/38-27E (S) by comparing 1977 production to 1979 production. The testing was to determine if any differences could be identified that may be contributory to the frictional shortcomings experienced by Cadillac. The samples were provided by Cadillac Motor Division, GMC.

Conclusions:

1. No significant differences were found for either the primary, 734-161, or the secondary, 38-27E, linings between 1977 and 1979 produced materials.
2. Testing included physical Q.C. properties, IR analysis, and the J-661 and FAST friction tests.

Method:

Routine Q.C. tests included Specific Gravity (PRL 44B1), Gogan Hardness (PRL-11B2), Acetone Extract (PRL 1-3) and Ash Content (PRL 37A-1). Infrared analysis was performed on the extract. Frictional properties were compared using the J-661 (F.M. 40) and FAST (PRL-56A-3) procedures.

Discussion:

The samples submitted by Cadillac were nominally 2" wide riveted strip lining assemblies. The manufacture date of the samples was determined by the date code stamp on the inside area of the strips. See data attachment for date codes tested. The ranges of test results were all well within the normal ranges expected for friction material compositions. The only possible disparity in the data generated was the FAST wear rates for the two 38-27E secondary linings tested, however, the magnitude of the difference is not uncommon for this procedure and as such should not be considered a significant difference. The wear rates from the same two samples was identical on the J-661 procedure.

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