

FILE NAME: Borg Warner (BW)

DATE: {Σμύ

DOC#: BW

DOCUMENT DESCRIPTION: a\$ΨŮ 5\$σŌoημύŋŮΩ ŮŮ a †^Ůo !ŌŌŮŮΩύσ

C E Burke
CEB x JHP 73

September 26, 1973

MEMORANDUM

To: Mr. W. R. O'Donnell, Jr. *file*

From: Mr. J. M. Nolan ✓

DESCRIPTION OF MAJOR ACCOUNTS

Borg-Warner Corporation

Borg-Warner Corporation is located in Bellwood, Illinois and we have been the only supplier of friction paper to this account. Due to this fact, a special relationship has developed as far as confidentiality of information, technical improvements, and developments of new grades to keep them competitive in the marketplace.

They presently sell 54% of the U.S. auto market. At the end of 1972 our sale of paper for their friction plates, which go into automatic transmissions, was \$1,580,000. We are 25% above that as of September 1973. Their sales to the auto industry constitutes \$7,000,000 and they sell 8,000,000 friction plates a month.

The paper is made of asbestos fibers with cotton inclusion. The basis weight is from 120 to 340 pounds. We make over 12 grades for them which are variations in basis weight and inclusions such as graphite and asbestos content. We sell them material in 13 inch wide rolls, although we have other widths. They get 6 inch wide rings from these rolls after blanking them out. These rings are saturated in a proprietary resin formulation and then under heat and pressure bonded to steel core plates. The characteristics required are frictional or abrasive characteristics due to the fact that different transmission oils are needed and different car manufacturers require different torque capacity. Some use a soft shift versus a high static one for their transmission. More durability is required in others. Different plates are used for reverse shift rather than direct shift. There will be three forward plates and one reverse plate.

110216

MEMORANDUM

Distribution of Major Accounts

-2-

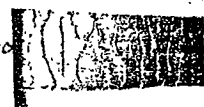
They also use two grades of paper for a different application which is called band liner paper. This paper is all the same except for thickness. A flexible band about a foot long and 2 inches wide is used and this material is bonded under heat and pressure to this steel flexible band. This band is then employed around the transmission housing and as in the case of Ford and Chrysler it is actually used as a second gear - the friction plates acting as the other gears. It fits over the housing that contains the direct clutch and is raised and lowered as needed.

A great deal of experimental work has been done in the past and is continuing to be done for this account in an attempt to keep them competitive with their competition - one of which is Delco owned by General Motors and serviced by Wrenn Papers. This is handled by Brad and the technology is kept separate. Borg-Warner is aware of this and we have a secrecy agreement with them. This agreement helps to keep us as the sole supplier of friction materials and also opens the way for joint patents which we might hold with them in the future on materials. We are working on different areas in replacing the basic fiber of asbestos and direct contact on proposed new products and also consistent production quantity is maintained by Chet Lobos and a personal visit is made every week to make sure that no problems arise on regular production and to keep the information flowing on new products and also to maintain and protect our role as the sole supplier of friction paper to Borg-Warner.

We also sell their German Division around \$50,000 worth of paper a year. This is handled separately and we are also starting to supply material for friction plates being sent to Japan. No volume as of yet except for small 10,000 pound runs.

1976 - YTD - DEC - 1
3 mil lb. - \$2,208,000

1975 - YTD - DEC
2 mil lb. - \$1,469,000



110217

Mead 005049