CONTACTS AT CLUTCH &
MARINE DIVISION

On Friday, April 19th, we visited the Clutch & Marine Division, Ft. Wayne, and met briefly with Mr. Phil Mazziotti, General Manager. He introduced Marty Hermanns, Chief Product Engineer - Clutches. They were interested to know that Victor Division was considering the development and marketing of clutch facings.

Mr. Hermanns pointed out that they knew very little about clutch facing. He said that they used specified grades from qualified vendors for specific clutch assemblies. They did not buy to Dana Specs but bought by grade number from the specific vendor.

There are two basic constructions:

1) Asbestos plus resin with wire reinforcements.

2) Asbestos plus resin and no reinforcement.

The wire is generaly brass but they have facings with steel and aluminum wire. The facings may have chips or slivers of copper or steel intermixed in the body and surface of the facing. The facings have historically been consistent and reliable. C & M periodically qualifies the different grades by physical tests that check out significant performance properties. We have requested a copy of one of these data sheets for our review. Three of the most significant properties are:

1) Frictional wear

2) Coefficient of friction

3) Burst strength at 500°F.

Mr. Hermanns said that he felt that Dana should go into the clutch facing business. He advised us to start with the wire reinforced facings. He indicated that he would enthusiastically support this approach.

EVALUATION TESTS

He took us on a tour of the Clutch Laboratory facilities where we saw some of the test equipment used to qualify the facings. This included the high temperature spin burst test which spins a facing @ 500°F at increasing RPM's to the point of physical