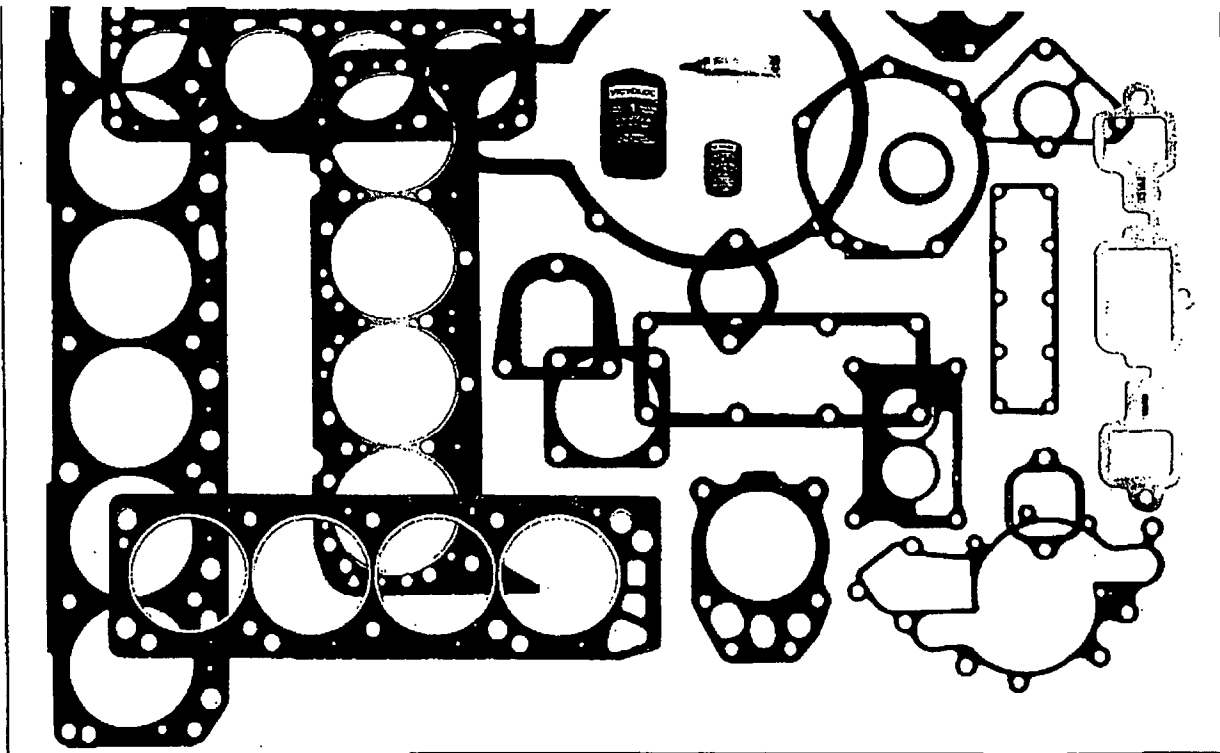




## What Will Replace Asbestos Gaskets?

By John E. Zeitz

**GASKET** suppliers and gasket material producers have been working for several years on programs to develop asbestos-free gasket materials for use in all the sealing needs of vehicular and industrial applications. And the tempo of this development is increasing.

Asbestos has been an important part of gasket materials since the advent of the internal combustion engine. It has a number of good characteristics, and has been used extensively. These good characteristics are the physical properties of asbestos, such as high heat resistance, excellent crush resistance, dimensional stability, and the ability to be produced into a homogeneous product.

The ability to produce a homogeneous product is greatly aided by the material's high surface area per unit weight, a factor as high as 60 sq. ft./gram (5.6 m<sup>2</sup>/gram). Added to these physical properties, relatively low cost and ease of processing must be included among the advantages of asbestos.

*John E. Zeitz is division chief engineer at the Victor Products Division of Dana Corporation.*

However, there are a number of disadvantages with the material. First, there is growing emphasis on costly preventive health and control substance programs required for those handling the materials. There is also a growing belief on the part of influential users and producers of asbestos products, as well as outside groups, that the use of asbestos in automotive and other vehicles should be curtailed.

The cost of company-wide health programs and controlling the environment in which asbestos is handled is causing many to seek alternatives to using the product. One problem for all suppliers and users of asbestos products is how the end user disposes of the product. In the gasket business this is a particularly sensitive area because often the end user finds himself using a wire brush or scraper to scrape asbestos off of an engine part to clean up residue gasketing.

Unfortunately, it is the asbestos you cannot see that finds its way into the lungs. So unless special preventive health procedures are followed, the end user of asbestos gaskets may be in more potential danger than the personnel in the producer's facility. This could be

particularly true in large volume engine rebuild operations.

Government regulatory agencies are keenly interested in seeing asbestos usage curtailed, or eliminated from industrial and commercial products. Though no timetables have been set, it is very likely a special license or waiver will be needed as early as 1985. And, by 1990, the use of asbestos may not be permitted under any circumstances.

It may be that government regulations alone may eventually force the elimination of all asbestos from areas where it is now used — including gaskets. The number of regulatory agencies controlling asbestos continues to grow. There are primarily six federal agencies concerned with asbestos. There are the Environmental Protection Agency (EPA), the Department of Transportation (DOT), the Consumer Protection Safety Commission (CPSC), the Mine Safety Health Administration (MSHA), the Occupational Safety and Health Administration (OSHA), and the Food and Drug Administration (FDA).

Among these six agencies, approximately 20 regulations have been promulgated to control

VPD-142-0002633