

brake systems use thick molded brake blocks which are bolted or riveted to shoes. Some non-asbestos materials have been found to exhibit sufficient mechanical strength and frictional properties for this application.

5.2 Brake System Trends in Passenger Cars, Trucks, and Equipment

For this study, motor vehicles have been divided into three classes: passenger cars, on-highway trucks, and off-highway vehicles. Motorcycles, transit buses and trains, and aircraft have not been included.

The overwhelming majority of vehicles in the United States are, as expected, passenger cars (Table 8). The majority of the 1984 American passenger cars were fitted with a rear-drum and front disc brake system; 33 percent of 1984 imported automobiles were fitted with 4-wheel disc brake systems⁽¹⁴⁾. Medium and heavy trucks continue to use traditional drum brakes. Light trucks use front disc brakes with rear drum brakes.

5.2.1 Passenger Cars

Passenger cars are the largest single market for friction products in the U.S. As indicated previously, there were about 130 million registered passenger cars in 1984 in the United States.

Prior to 1965, almost all American passenger cars were equipped with 4-wheel drum brakes with asbestos linings. In 1965, some vehicles (Lincoln Continental and Chevrolet Corvette) were equipped with front disc brakes. Widespread use of front disc brakes across most product lines of American manufacturers began in the early 1970s.

There are a substantial number of vehicles that have drum brake systems designed for use with asbestos friction materials. In 1984, there were still 11.5 million cars in operation that were manufactured prior to 1970, and the majority of these presumably were fitted with 4-wheel drum brakes. Prior to 1982, the majority of automobiles with front-wheel disc brakes had been designed for use with asbestos brake pads. Since the mean life of passenger cars is now about 7.6 years⁽¹⁵⁾, automobiles fitted with brakes designed for use with asbestos friction products will continue to be in operation for several more years. Vehicles manufactured in 1986