with asbestos friction materials can be expected to require aftermarket brake components for at least another 11 years.

Current American automobiles are almost exclusively designed with front wheel disc brakes. As shown in Table 9, American manufacturers do not appear to be embracing 4-wheel disc brakes as a means of changing the braking characteristics of automobiles. Currently, American manufacturers appear to be retaining rear wheel drum brakes. These brakes are attractive for the following reasons:

(1) Easier implementation of parking brake mechanism,
(2) Less susceptability to debris,
(3) Less susceptibility to corrosion,
(4) Less weight, and
(5) Less cost.

At the present time, there appears to be no distinct performance advantage under American driving speeds to rear wheel disc brakes other than reduced time required for maintenance. The use of rear disc brakes also simplifies the setting of front-to-rear braking balance.

The current trend among American automakers is to implement asbestos-free brake lining and brake pad materials in new major model changeovers. Brake systems on existing models are never routinely redesigned. New models, such as the Ford Taurus, are equipped with semi-metallic front disc brake pads and non-asbestos organic rear drum linings. Rather than redesign brake systems with 4-wheel disc brakes using semi-metallic pads, American automobile manufacturers have elected to retain rear drum brakes and direct development efforts toward new, non-asbestos rear drum linings. Qualification of non-asbestos materials through vehicle testing may take 2 years or longer, assuming a suitable material exists for a specific vehicle application. The redesign of a vehicle's rear brake system from drum brakes to disc brakes could take 5 to 7 years, with little guarantee of significantly improved performance.

5.2.2 On-Highway Trucks

On-highway trucks are generally classified with respect to gross vehicle weight class, i.e., by the vehicle curb weight plus cargo. Trucks can be considered single chassis vehicles or can be used in tractor-trailer