

materials designated for off-highway heavy-duty applications give unacceptable performance and durability.

Friction product manufacturers gave mixed reports concerning product performance. Allied/Bendix indicated that development work was still progressing, and substitute formulations need to be evaluated using vehicle tests and dynamometer tests. Scan-Pac, on the other hand, claimed to have products available for all heavy-duty vehicle applications, although no in-house inertia dynamometer or vehicle test facilities are available at Scan-Pac's facility for qualification of materials.

6.3 Concern of Respondents to Issues of Friction Material Availability

The comments of the respondents to this issue are summarized in Appendix C. U. S. and Japanese automobile manufacturers indicate that non-asbestos front disc brake pads are now being used extensively on new car models. Chrysler indicated that all but one vehicle manufactured by Chrysler is fitted with semi-metallic front brake pads, while General Motors acknowledged that for front disc brakes, asbestos-free replacement materials are now available for new model cars. Asbestos-free rear drum brake materials are still not available for automotive applications.

Volkswagen indicated that in model year 1987 all products will be fitted with non-asbestos linings, while Daimler-Benz indicated that new 300 series models will be fitted with asbestos-free friction materials. Daimler-Benz did indicate that brake systems of other vehicles in their product line are undergoing lengthy and extensive redesign and requalification to be fitted with non-asbestos materials.

Since most heavy duty truck and equipment brakes use drum brakes, the concerns of truck and equipment manufacturers were different from those of the automobile manufacturers. Since truck life is considerably longer than automobile life, aftermarket availability for older vehicles remains a strong concern. Freightliner and Rockwell indicated that friction product suppliers have been unable to provide qualified non-asbestos linings for heavy-duty on-highway and off-highway applications. John Deere indi-