

105 requirements describing brake operation in the event of partial loss of hydraulic fluid.

3.5.2.2 Parking Brake Test. The parking brakes for trucks, buses, and tractor-trailer combinations must be capable of holding the vehicle on a 20 percent grade, on a concrete surface, under both empty or fully loaded conditions in both directions. Initial brake application can be achieved using air or hydraulic activators. Once actuated the application braking loads must be maintained solely by mechanical means.

3.5.2.3 Dynamometer Testing for FMVSS 121. FMVSS 121 describes procedures for inertia dynamometer evaluation of friction materials. These procedures require the installation of a complete air brake assembly on the inertia dynamometer. Since stopping distance requirements cannot be measured using an inertia dynamometer, brake performance is determined by measuring brake torques and deceleration rates as a function of air pressure in the actuator. Dynamometer inertia is determined by using the inertial equivalent to the vehicle load on each axle.

The dynamometer test sequence for determining brake retardation, brake power, and brake recovery is listed in Appendix A. Trailers are only required to pass brake retardation requirements. Service line pressure and calculated brake retardation factor are used to determine acceptability of the materials.

3.5.3 Proposed Motor Vehicle Vehicle Safety Standard 135

This standard would replace FMVSS 105 for hydraulic brakes for passenger cars only. It contains a shortened test procedure designed to be more harmonized with European regulations. Requirements posed by the new standard which may affect friction material qualification are described in the following sections. This proposed standard can be found in Federal Register, May 10, 1985, Vol. 50, No. 91, pp. 19744 through 19760. Later revisions are in FR, Jan 14, 1987, Vol. 52, No. 9, pp 1474 through 1474.