

# Truck and bus - Service brake structural integrity dynamometer test procedure

## 1. Scope

This standard specifies the test procedures for evaluating the structural integrity of normally operated service brakes of trucks and buses by using the inertia dynamometer.

## 2. Normative reference

The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard.

If the indication of the year of coming into effect is given to these referred standards, only the edition of indicated year constitutes the provision of this Standard but the revision and amendment made thereafter are not applied.

**JIS D 0210:1995** General rules of brake test method of automobiles and motor cycles

## 3. Definitions

Definitions of main terms used in this standard shall conform to those defined in **2** (Definitions) of **JIS D 0210**.

## 4. Classification of tests

Tests shall be classified as follows.

### a) Structural integrity test

Test to investigate the yield state or breakdown of the brake in the course of the permanent deformation process. The term breakdown as used herein is the condition in which deformation, cracks, or other abnormal conditions have developed to impair the brake function.

### b) Structural durability test

Test to investigate the durability of the brake under conditions severer than normal.

**Remark:** In tests **a**) and **b**) above, tests shall be conducted in both forward and reverse directions.

## 5. Test conditions

### 5.1 Vehicle classification

Test vehicles shall be classified into the following categories according to the riding capacity and gross vehicle mass.

Each of these categories is designated as follows. Given in parentheses for reference are the names used in the technical regulations for braking equipment of trucks and buses.

Category M2 (Class 1 buses): Buses with a riding capacity of 10 persons or more and a gross vehicle mass of 5t or less

Category M3 (Class 2 buses): Buses with a riding capacity of 10 persons or more and a gross vehicle mass of more than 5t

Category N1 (Class 1 trucks): Trucks with a gross vehicle mass of 3.5t or less

Category N2 (Class 2 trucks): Trucks with a gross vehicle mass of more than 3.5t and less than 12t

Category N3 (Class 3 trucks): Trucks with a gross vehicle mass of more than 12t

### 5.2 Conditions of brake parts

The conditions of each of different brake parts at the time of testing shall comply with **4.3** (Conditions of brake parts) of **JIS D 0210**.

### 5.3 Inertia