

JIS

JAPANESE INDUSTRIAL STANDARD

**Vibration testing methods
for automobile parts**

JIS D 1601—1995

Translated and Published

by

Japanese Standards Association

**In the event of any doubt arising,
the original Standard in Japanese is to be final authority.**

JAPANESE INDUSTRIAL STANDARD

J I S

Vibration testing methods
for automobile parts

D 1601-1995

1. Scope This Japanese Industrial Standard specifies the vibration testing methods for automobile parts (hereafter referred to as "parts").
2. Classification of tests The tests shall be classified as follows:
 - (1) Resonance frequency detection test This test is designed to determine the resonance frequency of each part.
 - (2) Vibration function test This test is designed to check the function of each part under vibrational conditions.
 - (3) Vibration endurance test This test is designed to determine the durability of each part against the vibration of a constant frequency.
 - (4) Sweep vibration endurance test This test is designed to determine the durability of each part against vibration, the frequency of which is increased and decreased continuously at a constant rate.
3. Classification of vibrational conditions The vibrational conditions for the vibration function test and the vibration endurance test shall be classified as follows:
 - (1) The vibrational conditions for the parts shall be classified as follows by type of automobiles to which they are installed:
 - Type 1 : Those mainly for passenger car parts
 - Type 2 : Those mainly for bus parts
 - Type 3 : Those mainly for motortruck parts
 - Type 4 : Those mainly for motorcycle parts
 - (2) The vibrational conditions for the parts shall be classified as follows by position of installation:
 - Class A : Those for the parts to be installed on the body or on the springs of the suspension system, which are subject to a relatively low degree of vibration.
 - Class B : Those for the parts to be installed on the body or on the springs of the suspension system, which are subject to a relatively high degree of vibration.
 - Class C : Those for the parts to be installed on the engine structure, which are subject to a relatively low degree of vibration.
 - Class D : Those for the parts to be installed below the springs of the suspension system or on the engine structure, which are subject to a relatively high degree of vibration.

The examples of the products, to which the classification of vibrational conditions has been applied, are given in Informative reference Table 1.