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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 30173.2-2014

Replacing GB/T 8540-1987

**Mechanical vibration and shock -- Resilient mounting systems -- Part 2:
Technical information to be exchanged for the application of vibration
isolation associated with railway systems**

机械振动与冲击 弹性安装系统 第2部分：轨道交通系统隔振应用需交换的技术信息

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
Vibration 4 Mass Transit System	
Objective 5 Isolator (why isolation mechanical system)	
6 Isolation objects	
6.1 Isolation vibration source	
6.2 By the vibration isolator body	
7 Isolation applicability (when using structural or mechanical vibration isolation system)	
Measurement and evaluation of vibration state 4	
Select Install vibration isolation system information	
10 Rail transit systems management agencies information	
11 Provided by the vibration body by the user and manufacturer information	
11.1 Building	
11.2-sensitive devices	
12 Isolation System supplier information	
12.1 Isolation System	
Physical data 12.2 Isolation System	
12.3 Dynamic Performance	
12.4 Durability	
7 12.5 environmental data	
12.6 Maintenance data	
13 Isolation Performance Verification Guide	
Reference	

Foreword

GB/T 30137 "Mechanical vibration and shock resilient mounting system" is divided into two parts.

--- Part 1. Technical information to be exchanged isolation systems;

--- Part 2. Technical Information Rail Transit system vibration isolation application needs exchange.

This section GB/T Part of 230,137.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 8540-1987 "shock and vibration isolation for specifying characteristics Guidelines", and GB/T 8540-1987 Compared to the main technical changes are as follows.

--- The standard name changed to "Mechanical vibration and shock resilient mounting system";

--- Adds "1" and its related content, the GB/T 8540-1987 "introduction" to modify the contents of the "scope";

--- Added "2 Normative references" and its related content;

--- The "term" to "Terms and Definitions", adding "rail system", "subject to vibration body", "user", "manufacturer", "anti-vibration device Supplier ", " base isolation "terms and their definitions, delete the words" quarantine systems ", " load "and" static stiffness "of the content;

--- Added "vibration mass transit system", "the purpose of isolation," "isolation Object", "Isolation of applicability", "measured vibrational state the amount of content and evaluation ", " Mass Transit System management agencies information "and other chapters;

--- The "user information to be provided" to "vibration body that is provided by the users and producers of information" and the original "isolation of a problem Like that ", " Installation Information, "" support structure data "and" environmental data "4 was changed to" building "and" sensitive devices Prepared "2;

--- The 'manufacturer shall provide the following information to ensure proper use of the isolator "Modifying letter provides for" Isolation System Supplier Interest "and the original" physical data, "" performance data ", " environmental information "and" Maintenance Information "4 changed to" Isolation System "and "The physical isolation system", "dynamic performance", "durability", "environmental data" and "maintenance data" 6;

--- Added "Vibration Isolation Performance Validation Guide" chapter.

This section uses the translation method identical with ISO 2017-2:2007 "Mechanical vibration and shock resilient mounting systems - Part 2. Track Technical Information Transport System applications require isolation of exchange "(in English).

The correspondence between the consistency of the international normative documents referenced in our country with the following documents.

--- GB/T 2298-2010 Mechanical vibration, shock and condition monitoring of vocabulary

(ISO 2041:2009, IDT)

--- GB/T 11349.1-2006 mechanical vibration and shock testing to determine admittance - Part 1. Basic definitions and transducers (ISO 7626-1. 1986, IDT)

--- GB/T 13441.2-2008 Mechanical vibration and shock of human exposure to whole-body vibration rating - Part 2. the building Vibration (1Hz ~ 80Hz) (ISO 2631-2:2003, IDT)

--- GB/T 14124-2009 vibration measuring mechanical vibration and shock of the building and evaluation of effects on buildings Directory (ISO 4866:1990, IDT)

--- GB/T 14125-2008 Mechanical vibration and shock vibration and shock sensitive equipment in buildings on Measurement and Evaluation (ISO 8569:1996, IDT)

--- GB/T 19846-2005 caused by mechanical vibrations inside the train by measuring the vibration of railway tunnels (ISO 10815.

1996, IDT)

--- GB/T 19847-2005 Mechanical vibration and shock analysis procedure for impact evaluation of mechanical systems impedance analysis provider and the exchange of information between users (ISO 9688:1990, IDT)

--- GB/T 19875-2005 mechanical vibration and shock vibration of the fixed structure in vibration measurement and evaluation of quality management Specific requirements (ISO 14964:2000, IDT) this part of the National mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) and focal points.

This section drafted by. China energy saving Labor and Health Institute Academy of Railway Sciences, the Ministry of Railways Product Quality Supervision and Inspection Center locomotive Vehicle inspection station, China Shipbuilding Industry Corporation seventh eleven Research Institute, China Aircraft Strength Research Institute, China Shipbuilding Industry Corporation Qi - San Institute.

Introduction

GB/T 30137 in this section apply only to the resilient means.

Some shock and vibration isolator (resilient base) vendors have a wealth of experience in the application, in most cases, they are very willing to profit with these background information to help users solve the problem of the use of vibration isolators. However, if the user comes to the user by the vibration exciter or vibration source or manufacture Fails to provide sufficient information regarding the application, the supplier is often difficult to provide this service.

On the other hand, since the vendor does not provide enough technical information, users sometimes difficult to rational use of vibration isolators. Therefore, the user must Vibration

Isolator self assessment test, probably inadvertently repeated suppliers have completed a job.

When the manufacturer or by some of the local oscillator to provide vibration isolation system body, the manufacturer required to obtain the relevant application, location and environment from the user details.

This section is intended for the mass transit system vibration and shock isolation technology, users, suppliers of the resilient means and to a local oscillator or by vibration Manufacturer body provide technical information exchange guide to the correct application of vibration isolation system.

Elastic means defined in this section between the device and the support structure of an elastic element or system for the purpose of attenuating Rail System architecture to deliver a shock or vibration.

Mechanical vibration and shock resilient mounting system Part 2. Mass Transit System Isolation Applications Exchange of technical information required

1 Scope

To ensure proper exchange Mass Transit System Shock and vibration isolation applications technical information This section provides corresponding requirements.

This section applies to both new rail transit system, but also for the existing rail system, including due to the aging of existing rail system and new Land use planning and implementation, or close to the new vibration problems existing rail system sensitive to vibrations caused by land development.

This section applies to rail environmental vibration problem, but does not involve itself in the rail vehicle vibration.

Is the purpose of this part manufacturers and users of common concern - given an appropriate answer to these problems (for example, the mechanical system vibration isolation Reasons, object, time and methods).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 2041 Mechanical vibration, shock and condition monitoring of vocabulary
(MechanicalVibration, shockandconditionmonni-tonring-Vocabulary) ISO 2631-2
Mechanical vibration and impact evaluation of human exposure to whole-body vibration -
Part 2. Vibration in buildings (1Hz ~ 80Hz)