

JAPANESE INDUSTRIAL STANDARD

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Rolling stock — Bogie — Strength test — Part 1: Methods for static load testing

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Foreword

This Japanese Industrial Standard has been established by the Minister of Land, Infrastructure, Transport and Tourism through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Association of Rolling Stock Industries (JARI)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act. This edition replaces **JIS E 4208**: 2004, which has been withdrawn.

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JIS E 4208 series consists of the following 2 parts under the general title *Rolling stock-Bogie-Strength test*:

Part 1: Methods for static load testing

Part 2: Methods for on-track testing

Rolling stock — Bogie — Strength test — Part 1: Methods for static load testing

JIS E 4208-1: 2021

1 Scope

This Japanese Industrial Standard specifies the methods of static load tests (hereafter referred to as test) for confirming the strength of bogie frames, beams or the combination of bogie frames and beams (hereafter referred to as bogie frames, etc.) of bogies used for a rolling stock.

This Standard does not apply to the bogie frames and beams used for special railway cars (such as a trolleybus, a monorail car, a modified-personal-rapid-transit car and a magnetically supported vehicle) which use e.g. a rubber tire; however, this Standard may apply to the use of strain gauges on the bogie frames of these cars.

2 Normative reference

Part or all of the provisions of the following standard, through reference in this text, constitute provisions of this Standard. The most recent edition of the standard (including amendments) indicated below shall be applied.

JIS E 4207 Rolling stock — Bogie — General rules for design of bogie frame strength

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in **JIS E 4207** apply.

3.1

product for testing

bogie frame after the completion of machining, or bogie frame in a state in which parts and the like are incorporated

3.2

strain gauge

strain gauge using a metallic resistor of foil state in gauge sensitive parts (hereafter referred to as gauges)

3.3

stress concentration gauge

gauge with multiple gauge sensitive parts continuously arranged in close proximity to measure strain in areas where the strain distribution changes rapidly

3.4