

## DIN EN 13146-4



ICS 93.100

Supersedes  
DIN EN 13146-4:2015-01

**Railway applications –  
Track –  
Test methods for fastening systems – Part 4: Effect of repeated loading;  
English version EN 13146-4:2020,  
English translation of DIN EN 13146-4:2020-06**

Bahnanwendungen –  
Oberbau –  
Prüfverfahren für Schienenbefestigungssysteme – Teil 4: Dauerschwingversuch;  
Englische Fassung EN 13146-4:2020,  
Englische Übersetzung von DIN EN 13146-4:2020-06

Applications ferroviaires –  
Voie –  
Méthodes d'essai pour les systèmes de fixation – Partie 4: Effets produits par des charges répétitives;  
Version anglaise EN 13146-4:2020,  
Traduction anglaise de DIN EN 13146-4:2020-06

Document comprises 21 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

*A comma is used as the decimal marker.*

## National foreword

This document (EN 13146-4:2020) has been prepared by Technical Committee CEN/TC 256 “Railway applications” (Secretariat: DIN, Germany).

The responsible German body involved in its preparation was *DIN-Normenausschuss Fahrweg und Schienenfahrzeuge* (DIN Standards Committee Railway), Subcommittee NA 087-00-01-04 UA “Fastening systems”.

DIN EN 13146 consists of the following parts, under the general title *Railway applications — Track — Test methods for fastening systems*:

- *Part 1: Determination of longitudinal rail restraint*
- *Part 2: Determination of torsional resistance*
- *Part 3: Determination of attenuation of impact loads*
- *Part 4: Effect of repeated loading*
- *Part 5: Determination of electrical resistance*
- *Part 6: Effect of severe environmental conditions*
- *Part 7: Determination of clamping force and uplift stiffness*
- *Part 8: In-service testing*
- *Part 9: Determination of stiffness*
- *Part 10: Proof load test for pull-out resistance.*

For current information on this standard, please go to DIN’s website ([www.din.de](http://www.din.de)) and search for the document number in question.

## Amendments

This standard differs from DIN EN 13146-4:2015-06 as follows:

- a) normative references have been revised;
- b) the reference to the terminology databases of CEN and ISO has been included;
- c) the test procedure has been revised including detailed information and requirements;
- d) new requirements have been specified relating to the static and low-frequency dynamic stiffness;
- e) 7.6 “Cyclic loading” has been completely revised and new steps with new requirements and forces have been specified;
- f) additional force transmissions have been included in Figure 5;
- g) requirements for the test rig have been revised;
- h) the test report has been extended to include the minimum and maximum force;
- i) a Bibliography has been included;
- j) the standard has been editorially revised.

## Previous editions

DIN EN 13146-4: 2003-02, 2007-06, 2012-06, 2015-06

English Version

Railway applications -  
Track -  
Test methods for fastening systems -  
Part 4: Effect of repeated loading

Applications ferroviaires -  
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Teil 4: Dauerschwingversuch

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