SLOVENSKI STANDARD
SIST EN 50553:2012/A1:2016

01-junij-2016

Železniške naprave - Zahteve za sposobnost vožnje tirnih vozil v primeru požara

Railway applications - Requirements for running capability in case of fire on board of rolling stock

Bahnanwendungen - Anforderungen an die Fahrfähigkeit im Brandfall an Bord von Bahnfahrzeugen

Applications ferroviaires - Exigences en matière d'aptitude au roulement en cas d'incendie à bord des véhicules ferroviaires

Ta slovenski standard je istoveten z: **EN 50553:2012/A1:2016**

ICS:

13.220.99	Drugi standardi v zvezi z varstvom pred požarom	Other standards related to protection against fire
45.060.01	Železniška vozila na splošno	Railway rolling stock in general

SIST EN 50553:2012/A1:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50553:2012/A1

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ICS 13.220.50; 45.060.01

English Version

Railway applications - Requirements for running capability in case of fire on board of rolling stock

Applications ferroviaires - Exigences en matière d'aptitude au roulement en cas d'incendie à bord des véhicules ferroviaires

Bahnanwendungen - Anforderungen an die Fahrfähigkeit im Brandfall an Bord von Bahnfahrzeugen

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

This document (EN 50553:2012/A1:2016) has been prepared by CLC/TC 9X “Electrical and electronic applications for railways”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-02-15
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2019-02-15

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of EN 50553:2012.

1 Modifications to 6.2.2.1, Transformers and inductances, List Entry b)

Replace:

b) Overpressure in the transformer or inductance tank:

There shall be an over-pressure valve which protects the tank from rupture arising from a catastrophic internal failure. The value of the pressure at which the valve operates shall be consistent with the tank design and shall be subject to type test. The outlet from the over-pressure valve shall not be local to potential sources of ignition.

There shall be an over-pressure valve which, on activation, opens the main circuit breaker. The pressure at which this activates shall be such that for all non-catastrophic internal failures no fluid is released from the over-pressure valve.

The overpressure valve shall be in accordance with EN 50216-5:2002/A2:2005, Clause 6.

NOTE 1 The activation pressure of the over-pressure switch is typically 0,2 bar less than the pressure at which the over-pressure valve operates.

with:

b) Overpressure in the transformer or inductance tank:

There shall be a **protection device** which protects the tank from rupture arising from a catastrophic internal failure. The value of the pressure at which the **protection device** operates shall be consistent with the tank design and shall be subject to type test. The outlet from the **protection device** shall not be local to potential sources of ignition.

There shall be a **protection device** which, on activation, opens the main circuit breaker. The pressure at which this activates shall be such that for all non-catastrophic internal failures no fluid is released from the **protection device**.

In case an overpressure valve is used, the overpressure valve shall be in accordance with EN 50216-5:2002/A2:2005, Clause 6.

NOTE 1 **In case an over-pressure valve is used the** activation pressure of the over-pressure switch is typically 0,2 bar less than the pressure at which the over-pressure valve operates.

2 Modification to 6.2.2.1, Transformers and inductances, List Entry c)

Replace:

c) Temperature and flow monitoring of the insulation liquid:

There shall be a means of monitoring the temperature and ensuring the flow of the insulation liquid.

If the rate of flow is sufficient to ensure accurate measurement of insulation liquid temperature then the power should be managed in accordance with the temperature control strategy for the transformer or inductance.

The temperature control strategy, including start up in cold temperatures, shall comprise:

– control of the tractive effort so the limit temperature of the insulation liquid is not exceeded, and

– isolating the transformer from the high power source if the temperature-rise limit of the insulation liquid is reached.

If the rate of flow is insufficient to ensure accurate measurement of insulation liquid temperature then the power should be shut down by isolating the transformer from the high power source.

NOTE 2 The limit temperature and the temperature-rise limit are described in 8.2 of EN 60310:2004.

with:

c) Temperature and flow monitoring of the insulation liquid:

There shall be a means of monitoring the temperature and ensuring the flow of the insulation liquid.

If the rate of flow is sufficient to ensure accurate measurement of insulation liquid temperature then the power should be managed in accordance with the temperature control strategy for the transformer or inductance.

The temperature control strategy, including start up in cold temperatures, shall comprise:

– control of the tractive effort so the limit temperature of the insulation liquid is not exceeded, and

– isolating the transformer from the high power source if the **temperature limit** of the insulation liquid is reached.

If the rate of flow is insufficient to ensure accurate measurement of insulation liquid temperature then the power should be shut down by isolating the transformer from the high power source.

NOTE 2 The limit **temperatures are** described in EN 60310:2004, 8.2.