SLOVENSKI STANDARD
SIST EN 15654-1:2018/oprA1:2022

01-februar-2022

Železniške naprave - Meritve vertikalnih kolesnih in osnih obremenitev - 1. del: Meritve na železniških vozilih med vožnjo - Dopolnilo A1

Railway applications - Measurement of vertical forces on wheels and wheelsets - Part 1: On-track measurement sites for vehicles in service

Bahnanwendungen - Messung von vertikalen Rad- und Radsatzkräften - Teil 1: Gleisseitige Messeinrichtungen für fahrende Fahrzeuge

Applications ferroviaires - Mesurage des forces verticales à la roue et à l'essieu - Partie 1 : Sites de mesure en voie des véhicules en service

Ta slovenski standard je istoveten z: **EN 15654-1:2018/prA1**

ICS:

45.060.01	Železniška vozila na splošno	Railway rolling stock in general

SIST EN 15654-1:2018/oprA1:2022 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Railway applications - Measurement of vertical forces on wheels and wheelsets - Part 1: On-track measurement sites for vehicles in service

Applications ferroviaires - Mesurage des forces verticales à la roue et à l'essieu - Partie 1 : Sites de mesure en voie des véhicules en service

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This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

This draft amendment A1, if approved, will modify the European Standard EN 15654-1:2018. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 15654-1:2018/prA1:2021) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

1 Modification to the European foreword

Delete the 4th and 5th paragraphs.

2 Modification to the Introduction

Add the following paragraph after the existing ones:

The measuring systems according to this document are not considered to be essential for the safety of the railway system. However, they have the potential to support the identified essential requirements of Directive 2016/797/EU.

3 Modification to 6.3, Table 5

Replace the existing Table 5 by the following:

Reported data	Reporting status	Symbols	XML-element	XML-attribute	Unit (remark)
Measurement			**Location**		
Location identification code [a]	M			id	- (text or number)
Location of the site Latitude, longitude	M			GPSLocation	DDD (decimal degrees)
Measurement validity (0/1) [b]	M		DataValid		-
Date and time of first axle passing the reference cross section (e.g. the first sensor)	M		started		ISO 8601-Format
Reason for measurement failure	O			ErrorCode Message	Text
Train			**Train**		
Direction of travel	M		Direction		- (−1/1)
Train gross mass	M	m_{trn}	Mass		t
Distance between first and last wheelset	M	l_{trn}	Length		m
Number of axles	M	n_{trn}	nAxles		-
Number of running gears	O		nRunningGears		-
Number of vehicles	O		nVehicles		-
Mean train speed	M		Speed		km/h
Vehicle			**Vehicle**		
Vehicle sequential number [d]	O			iVehicles	-
Vehicle gross mass	O	m_{veh}	Mass		t

Reported data	Reporting status	Symbols	XML-element	XML-attribute	Unit (remark)
Axle sequential number (first axle of the vehicle) [e]	O			iAxle	-
Number of axles in the vehicle	O	n_{veh}	nAxles		-
Vehicle type	O		VehicleType		text
Mean speed of vehicle	O		Speed		km/h
Speed change per vehicle	O		AccelerationX		m/s^2
Mean axle load of vehicle	O	$\overline{P}_{veh}$	meanAxleLoad		t
Diagonal imbalance ratio of adjacent running gears of the vehicle	O	$\theta_{diag,veh,i}$	RatioDiagonal		-
Lateral imbalance ratio of the vehicle (side-to-side ratio)	O	$\theta_{lat,veh}$	RatioLateral		-
Relative side-to-side wheel force deviation of vehicle	O	$\Delta q_{side,veh}$	dMeanLR		-
Maximum axle load of the vehicle	O	$P_{max,veh}$	maxMass		
Relative deviation of difference between maximum axle load and mean axle load, and all divided by the mean axle load	O	Δp_{veh}	dMaxMean		-
Maximum longitudinal imbalance ratio of adjacent running gears in a vehicle (front-to rear ratio)	O	$\theta_{long,veh}$	RatioLongitudional		-
Relative deviation of mean axle loads/mean wheelset forces between two running gear of a vehicle	O	$\Delta p_{rg,i}$	dMean		-
European vehicle number	O		EVN		
Vehicle based orientation	O		vehicleOrient		1/2
Running gear			**RunningGear**		
Running gear sequential number [f]	O	i_{rg}		iRunningGear	-
Relative axle load deviation inside running gear	O	$\Delta p_{rg,j}$	dMaxMean		-
Sum of axle loads per running gear	O	$P_{rg,i}$	Mass		t
Sum of wheel forces per running gear side	O	$Q_{rg,i,k}$	VerticalForce		kN
Mean axle load of running gear	O	$\overline{P}_{rg}$	meanMass		t
Diagonal imbalance ratio of adjacent axles of the running gear	O	$\theta_{diag,rg,j}$	RatioDiagonal		
Longitudinal imbalance ratio of adjacent running gears in a vehicle	O	$\theta_{long,rg}$	RatioLongitudional		-