



NSAI
Standards

Irish Standard
I.S. EN 16704-1:2016

Railway applications - Track - Safety protection on the track during work - Part 1: Railway risks and common principles for protection of fixed and mobile work sites

I.S. EN 16704-1:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 16704-1:2016 is the adopted Irish version of the European Document EN 16704-1:2016, Railway applications - Track - Safety protection on the track during work - Part 1: Railway risks and common principles for protection of fixed and mobile work sites

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EUROPEAN STANDARD

EN 16704-1

NORME EUROPÉENNE

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English Version

Railway applications - Track - Safety protection on the track during work - Part 1: Railway risks and common principles for protection of fixed and mobile work sites

Applications ferroviaires - Voie - Protection et sécurité
durant des travaux sur la voie - Partie 1: Risques
ferroviaires et principes communs de protection des
chantiers fixes et mobiles

Bahnanwendungen - Oberbau - Sicherungsmaßnahmen
während Gleisbauarbeiten - Teil 1:
Eisenbahngefährdungen und allgemeine Prinzipien
zum Schutz ortsfester und ortsveränderlicher
Baustellen

This European Standard was approved by CEN on 10 September 2016.

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Contents	page
European foreword.....	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 Common principles.....	17
4.1 General.....	17
4.2 Work done by 3rd party.....	18
5 Principles of risk assessment.....	18
5.1 General.....	18
5.2 Decision about safety measures	19
5.3 Lines with more than one track	20
5.4 Supervision.....	20
5.5 Documentation.....	20
5.6 Consideration of human behaviour	20
5.7 Actualization of risk assessment	21
5.8 Remote controlled equipment of the track.....	21
6 Hierarchy of Safety Measures and parameters for the five railway risks.....	21
6.1 General	21
6.2 Risk 1 – Personnel being struck by a train or injured due to wind drag on open working track (safety of the worker).....	22
6.2.1 General.....	22
6.2.2 Blocking	23
6.2.3 Warning	24
6.3 Risk 2 – Personnel being struck by a train or injured due to wind drag from a train on adjacent track (safety of the worker)	25
6.3.1 General.....	25
6.3.2 Blocking).....	27
6.3.3 Separation.....	28
6.3.4 Warning	29
6.3.5 Additional measures	30
6.3.6 Exceptional circumstances	31
6.4 Risk 3 – Personnel being struck by machine or rail vehicle on blocked track (safety of the worker in the work site)	31
6.4.1 Measures	31
6.4.2 Process on the work site.....	31
6.4.3 Organization.....	32
6.5 Risk 4 – Machines, material or equipment being struck by a train on the adjacent track (safety of the operation/safety of the worker).....	32
6.5.1 General	32
6.5.2 Blocking (of the adjacent track).....	33
6.5.3 Separation.....	33
6.5.4 Warning with influence on train circulation).....	34
6.5.5 Additional measures	34

6.6	Risk 5 – Personnel being affected by electric shock/electrocuted (safety of the worker).....	34
6.6.1	General.....	34
6.6.2	Measures for work near fixed electrical equipment.....	34
6.6.3	Disconnection of power.....	36
6.6.4	Induction.....	36
6.6.5	Working procedures.....	36
6.6.6	Traction returning current in rail	37
6.6.7	Risk by broken overhead line	37
7	Working in tunnels.....	38
7.1	General.....	38
7.2	Safety measures for staff working in tunnels	39
8	Designing infrastructure.....	41
8.1	General.....	41
8.2	Designing new infrastructure	41
8.3	Designing modifications of the infrastructure.....	41
9	Safety documentation and information.....	42
9.1	General.....	42
9.2	Safety document for planning (safety plan).....	42
9.2.1	General requirements.....	42
9.2.2	Necessary information for the safety document for planning.....	43
9.3	Safety information for briefing.....	44
9.3.1	General.....	44
9.3.2	Content of safety briefing.....	44
9.3.3	Traceability.....	45
9.4	Access to and egress from the work site.....	45
10	Use of personal protective equipment.....	45
Annex A (normative)	Requirements and conditions to manage safety measures	46
A.1	Blocking.....	46
A.1.1	Conditions/requirements for blocking:	46
A.1.2	Procedure for blocking/de-blocking	46
A.1.2.1	Procedure before starting the work	46
A.1.2.2	Procedure after completion of the work.....	47
A.2	Separation	47
A.2.1	Risk assessment for installation/de-installation of a barrier	47
A.2.2	Specific requirements/conditions for using barriers as a separation	48
A.2.3	Surveillance of workers (without warning, without barrier)	48
A.2.4	Visual demarcation line.....	49
A.3	Warning.....	49
A.3.1	Warning process	49
A.3.2	Hierarchy in warning systems	49
A.3.3	Announcement distance for approaching trains.....	51
A.3.4	Type of signals.....	52
A.3.5	Acoustic planning.....	52

EN 16704-1:2016 (E)

A.3.6	Working with/on (noisy) track working machines:	54
A.3.7	Visual signalling devices	55
A.3.8	Controlling the reaction of workers	55
A.3.9	Specific requirements for LOWS	56
A.3.9.1	General	56
A.3.9.2	Chain of lookouts	56
A.3.9.3	Transmission of the warning by radio	56
A.4	Additional measures	57
Annex B (normative)	Parameters in risk assessment	58
Annex C (informative)	Matrix of main responsibilities	60
Annex D (informative)	Noise levels of machines	65
Annex E (informative)	Warning and remembering devices	67
E.1	Collective warning device vs. individual warning device	67
E.2	Combination of acoustic warning and visual signalling devices	67
Annex F (informative)	National speed limits for trains approaching work sites	68
Annex G (informative)	Functions within the process “warning”	71
Annex H (informative)	Model for safety plan on railway risks	73
H.1	General	73
H.2	Safety document for the railway risks 1 to 4	73
H.3	Decision about the safety measures	75
H.3.1	General	75
H.3.2	Decision about the safety measure for the working track (risk 1 and 3)	75
H.3.2.1	Stopping distances machines	75
H.3.2.2	Blocking (hierarchy step 1)	75
H.3.2.3	Warning	76
H.3.3	Decision about the safety measure for the adjacent track (risk 2 and 4)	77
H.3.3.1	Blocking (hierarchy step 1)	77
H.3.3.2	Separation by technical measures	78
H.3.3.3	Warning	78
H.3.3.4	Surveillance of workers without warning	79
H.3.4	Safety measures for access	79
H.3.5	Train circulation, track distance, dangerous zone	79
H.4	Planning of the safety measures	80
H.5	Handing out of the safety document and instructions on the site	82
H.5.1	General	82
H.5.2	Safety supervision	82
H.5.3	Safety execution	82

H.5.4 Contractor / sub-contractor(s)	82
Annex I (informative) Guideline for the decision of blocking the working track in relation to the use of portable equipment	84
Annex J (informative) Process and documentation about disconnection of fixed electrical equipment	86
J.1 Process of the decision about disconnection of fixed electrical equipment	86
J.2 Minimum contents for the documentation of the decision about disconnection of fixed electrical equipment.....	86
J.2.1 Information by the contractor	86
J.2.2 Nominated person in control of the electrical equipment.....	87
J.2.3 Documentation of the decision about the disconnection.....	87
J.3 Documentation of disconnection/reconnection of power for work near fixed electrical equipment	88
J.3.1 General.....	88
J.3.2 Instructions for the routing of the document:.....	88
J.3.3 Notice of working cessation	88
Annex K (informative) Examples for the possibility of intruding into the vicinity zone of the fixed electrical equipment.....	90
Annex L (informative) Key aspects of relevant EU Directives	91
L.1 Directive 89/391/EEC	91
L.2 Directive 2004/49/EEC	91
L.3 Directive 92/57/EEC.....	91
Bibliography	92

EN 16704-1:2016 (E)

European foreword

This document (EN 16704-1:2016) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2017, and conflicting national standards shall be withdrawn at the latest by June 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The purpose of this standard is to define a common approach to the safety of workers regarding the railway risks in relation to work on or in proximity of the track in the European Community.

National safety rules (for example national standards or company rules) should gradually be harmonized in line with this standard or be replaced by rules contained in this standard but according to directive 89/391/EEC it is not allowed to reduce the existing level of safety measures given by national safety rules. The current situation, in which, national safety rules continue to play a role, should be regarded as a transitional stage, leading ultimately to a situation in which, European rules described here after, will apply.

This European Standard is one of the series EN 16704 “*Railway applications – Track – Safety protection on the track during work*” as listed below:

- *Part 1: Railway risks and common principles for protection of fixed and mobile work sites*
- *Part 2-1: Common solutions and technology – Technical requirements for Track Warning Systems (TWS)*
- *Part 2-2: Common solutions and technology – Technical requirements for barriers*
- *Part 3: Competences of personnel related to work on or near the railway track*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard provides requirements and measures to deal with the significant and specific railway risks during works on or in proximity of the track and with common principles for the protection of fixed and mobile work sites with trains and/or machines circulating on the working track and trains circulating on the adjacent track(s). Railway risks and protection measures for access and egress to/from the work site are considered in the same way as railway risks and protection measures for work itself.

This European Standard is applicable to all operations related to work activities on rail guided systems. Infrastructure of metro, tram and other light rail systems is excluded from the scope¹⁾.

The following specific railway risks are taken into consideration:

- Risk 1: Personnel being struck by a train or injured due to wind drag from a train on open working track (safety of the worker);

NOTE 1 Risk 1 includes injuring of a worker by machines, material or equipment being struck by a train on the working track.

- Risk 2: Personnel being struck by a train or injured due to wind drag from train on adjacent track (safety of the worker);
- Risk 3: Personnel being struck by machine or train on blocked track (safety of the worker);
- Risk 4: Machines, material or equipment being struck by a train on the adjacent track (safety of the operation/safety of the worker);
- Risk 5: Personnel being electrified or electrocuted by fixed electrical equipment (safety of the worker).

NOTE 2 Risk 5 includes hazards caused by pantographs of passing trains.

This European Standard also provides requirements to the process of installing basic preventive measures when planning new infrastructure or installing corrective measures when adapting existing infrastructure.

This European Standard may be extended to third parties when it is considered appropriate and reasonable by the infrastructure manager, if one or more of the five significant risks described inside this standard, arise as a result of their activities in proximity of the track.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

FprEN 14033-2:2016, *Railway applications – Track – Railbound construction and maintenance machines – Part 2: Technical requirements for working*

FprEN 14033-3:2016, *Railway applications – Track – Railbound construction and maintenance machines – Part 3: General safety requirements*

EN 15746-2, *Railway applications – Track – Road-rail machines and associated equipment – Part 2: General safety requirements*

¹⁾ See Directive 2008/57/EC.

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