

5th meeting of the EFNDT Railway Forum

Inspection of components of vehicles and tracks



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Inspection of components of vehicles and tracks

General norms for the inspection of vehicles

907.0001	Nondestructive testing - principles
907.0001A01	Qualification and certification of NDT personnell
907.0001A02	Constitution of the surfaces
907.0001A03	Directory of the NDT equipment
907.0001A04	Description of the supervisor
907.0001V01	Form for the visual acuity

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Axles

907.0101	UT of new axles with drilled hole
907.0102	UT of new axles without drilled hole
907.0201	UT of axles with drilled hole during the maintenance
907.0202	UT of axles without drilled hole during the maintenance
907.0203	UT of the axle shaft with a special ultrasonic probe
907.0205	MT of axles
907.0206	ET of partial grinded areas of axles and wheels

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Wheels

907.0301	Directory of norms for mechanized inspection systems for DB Personenverkehr
907.0302	Directory of norms for mechanized inspection systems for DB Fahrzeuginstandhaltung
907.0303	Directory of norms for mechanized inspection systems for Railion
907.0304	Directory of norms for mechanized ultrasonic testing systems for axles with drilled hole
907.0401	UT of wheel flanges of wheels with brake discs
907.0402	UT of wheel flanges of solid wheels with Klotzbremsen
907.0403	UT of Radreifen for vertical cracks within the drill- and the bearing surface
907.0404	MT of wheel discs
907.0405	UT of wheel flanges of solid wheels with brake discs
907.0406	ET of wheel discs
907.0407	UT of wheel flanges of solid wheels for vertical cracks
907.0408	Inspection of Radreifen (different testing methods defined in the appendixes)
907.0409	ET of bearing surfaces klotzgebremster wheelsets
907.0410	VT of bearing surfaces

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Other vehicle components

907.0602	UT of Gabelzugstangen
907.0603	UT of Federspannschrauben
907.0605	PT of Kuppelstangen
907.0606	UT of weldings of buffers
907.0608	UT of springs
907.0610	VT (different methods and components defined in the appendixes)
907.0611	Inspection of surfaces (different methods and components defined in the appendixes)
907.0613	MT of Wankstützen of bogies
907.0614	MT of bogie frames (different components defined in the appendixes)
907.0615	ET of weldings of the dome of the ICE 1
907.0616	VT of weldings of the Trafoquerträger and the dome of the ICE 1
907.0617	VT of the Trafoprützen
907.0618	UT of Anlenkstangen of bogies
907.0619	UT of brake disc hubs
907.0620	UT of weldings between Bremsträger and Lagerbolzen
907.0621	MT of Drehdämpfer
907.0622	Inspection of Zugeinrichtungen (MT of different components defined in the appendixes)
907.0623	ET of bogie frames (ICE)
907.0624	UT of weldings of Bremshebel

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Other vehicle components

907.0625	VT of bogie frames
907.0626	MT of weldings in waggons
907.0627	MT of torsion bars
907.0628	ET of pull- and push rods
907.0629	UT of the Querträger
907.0630	UT of buffers
907.0631	MT of cams of brake discs
907.0632	UT of Federböcke of 2- and 3-axial waggons
907.0633	MT of Läuferwellen of motors
907.0634	UT of weldings of pull rods
907.0635	PT of components (different components defined in the appendixes)
907.0636	MT of load hooks
907.0637	MT of components of buffers
907.0638	MT of Federblätter
907.0639	UT thickness measurement
907.0640	UT of bogie frames
907.0641	MT of Federlenker
907.0643	MT of Drehmomentenstütze
907.0645	MT of welding of push rods

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Other vehicle components

907.0646	???
907.0647	MT of Radsatzlenker
907.0649	MT of Federböcke during the production
907.0650	ET of Tellerräder
907.0651	MT of Federschaken
907.0652	MT of Drehturm
907.0657	MT of Stützkonsolen of Kranlaufschienen
907.0659	UT of Stegbleche
907.0660	UT for the detection of weldings in bogies
907.0661	ET of Primärfederteller
907.0662	ET of fastening clips of Bremshohlwellen

Inspection of components of vehicles and tracks

Summary of vehicle inspection

In summary there are:

5 norms for the organization of NDT of vehicle components

26 norms for **UT**

9 norms for **ET**

5 norm for **VT**

20 norm for **MT**

2 norm for **PT**

3 norms for different procedures.

Inspection of components of vehicles and tracks

Rails and switches

826.3000	Nondestructive testing of rails, principles
826.3050	Approval of workshops for the inspection of rails
826.3100	Nondestructive testing of rails, inspection requirements
821.2007	Nondestructive testing of rails
821.2007A01	Report of the ultrasonic inspection vehicles
821.2007A02	Rail defects and evaluation
821.2007A03	Directory of norm for NDT of rails
821.2007V01	Report for the manual inspection of rails
821.2007V02	Report for VT of rails
821.2007V03	Form for the approval of inspection vehicles
821.2007V04	Report for UT of rail weldings

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Rails and switches

821.2007Z02	UT of aluminothermic rail weldings
821.2007Z04	UT of rails and switches with the SPG SRI (manual inspection system)
821.2007Z05	UT of rails and switches with the SPG 3 (manual inspection system)
821.2007Z10	UT of frogs with moving tip
821.2007Z11	UT of frogs with flexible tip
821.2007Z16	UT of blades in switches
821.2007Z30	ET of blades in switches (system PLR)
821.2007Z31	ET of rails and switches with the WPG (manual inspection system)
821.2007Z32	ET of blades in switches (system Olympus)
821.2007Z40	VT of rails
821.2007Z45	MT of components of switches after weldings
821.2007Z50	PT of components of switches after weldings
821.2007Z60	Approval of automated ultrasonic rail inspection systems
821.2007Z61	Approval of automated eddy current rail inspection systems
821.2007Z65	Approval of automated eddy current rail inspection systems (grinding/milling machines)

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Summary of rail inspection

821.2007Z70

UT of welded frogs after the production

821.2007Z71

UT of rods in switches after the production or repair

In summary there are:

4 norms for the organization of NDT of rails

8 norms for **UT**

3 norms for **ET**

1 norm for **VT**

1 norm for **MT**

1 norm for **PT**

3 norms for the approval of automated inspection systems.

Thank you for your attention !