**TAN-Nr.: TAN****Auftragsnummer:    /     /**

***TAN no.: Order code:***

**Checkliste B 254 Schienen/**

***Checklist B 254 Rails***

[ ]  **Checkliste B 254-1 Schienen ab 46 kg/m/**

 ***Checklist B 254-1 Rails from 46 kg/m,***

**[ ]  Checkliste B 254-2 Schienen für Weichen und Kreuzungen/**

 ***Checklist B 254-2 Rails for switches and crossings,***

**[ ]  Checkliste B 254-3 Radlenkerschienen/**

 ***Checklist B 254-3 Check rails,***

**Firma/ *Company:***

**Standort/ *Location:***

**Fertigung für Firma/ *Production for company:***

|  |  |
| --- | --- |
| **1** | **Welche Profile und Stahlgüten werden für die Deutsche Bahn AG eingesetzt?/** **What profiles and steel grades are used for Deutsche Bahn AG?** |
|  | **Stahlgüte/ *Steel grade*** | **R 260** | **R 350** | **R 320** | **Sonder-güte/** ***Special grade*** | **Liefer-länge (m)/** ***Delivery length (m)*** | **Bemerkungen/** ***Comments*** |
| [ ]  | 49 E5/ *49 E5* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 49 E1 (Hemmschuhbetrieb)/ *49 E1 (drag shoe operation)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 49 E5 A1 (Zu 2 – 49)/ *49 E5 A1 (Zu 2 – 49)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 49 E5 A2/ *49 E5 A2* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 49 E5 F1 (VO 1 – 49)/ *49 E5 F1 (VO 1 – 49)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 54 E4/ *54 E4* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 54 E3 (Hemmschuhbetrieb)/ *54 E3 (drag shoe operation)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 54 E4 A2 (Zu 1 – 54)/ *54 E4 A2 (Zu 1 – 54)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 54 E4 A2 / *54 E4 A2* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 54 E4 F1 (VO 1 – 54) /*54 E4 F1 (VO 1 – 54)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 60 E2/ *60 E2* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 60 E2 A1 (60 E2 – 40)/ *60 E2 A1 (60 E2 – 40)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 60 E2 A2 (Zu 60 E2 – 40)/ *60 E2 A2 (Zu 60 E2 – 40)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 60 E1 F1/ *60 E1 F1* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 60 E2 F1 (VO 60 E2 – 40)/ *60 E2 F1 (VO 60 E2 – 40)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 36 C1 (RL 1 – 49)/ *36 C1 (RL 1 – 49*) | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 48 C1 (RL 1 – 54)/ *48 C1 (RL 1 – 54)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  | 33 C1 (RL 1 – 60)/ *33 C1 (RL 1 – 60)* | [ ]  | [ ]  | [ ]  |       |       |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |       |       |

**Welche Walzlängen können maximal hergestellt werden? (m)/**

***What maximum rolling lengths can be produced? (m)***

**Nicht zutreffende Punkte finden keine Betrachtung im Bewertungsfeld!/**

***Items that do not apply are not analysed in the assessment field!***

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| **2** | **Liegen die erforderlichen Normen und Bahnstandards in der aktuellen Ausgabe und in der Landessprache vor?/** ***Is the latest edition of the requisite standards and rail standards available in the national language?*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | EN 13 674-1 Schienen ab 46 kg/m/ *EN 13 674-1 Rails from 46 kg/m* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | EN 13 674-2 Konstruktionsschienen/ *EN 13 674-2 Switch and crossing rails* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | EN 13 674-3 Radlenkerschienen/ *EN 13 674-3 Check rails* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | DBS 918 254-1 Schienen ab 46 kg/m/ *DBS 918 254-1 Rails from 46 kg/m* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | DBS 918 254-2 Konstruktionsschienen/ *DBS 918 254-2 Switch and crossing rails* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | DBS 918 254-3 Radlenkerschienen/ *CDBS 918 254-3 Check rails* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | EN ISO/IEC 17025 Labor/ *LEN ISO/IEC 17025 laboratory* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |

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| **Fertigungsprozess für Schienen/ *Production process for rails*** |
| **3** | **Vorblöcke/ *Blooms*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | 3.1-Zeugnisse/ *3.1 certificates* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Chemische Analyse/ *Chemical analysis* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Warmstempelung/ *Hot stamping* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Abmessungen/ *Dimensions* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Wasserstoff/ *Hydrogen* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Gesamtsauerstoff/ *Total oxygen* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Stichprobenprüfungen / *Sample tests* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Anlieferungszustand, Walztoleranzen/ *As-delivered state, rolling tolerances* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Lagerung(ggf. Warmhaltebereiche)/ *Storage (warm-holding areas if applicable)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Wareneingangsprüfung/ *Goods received inspection* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |
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| **4** | **Ofen/ *Furnace*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | Hubbalkenofen/ *Walking-beam furnace* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Ofentemperatursteuerung/ *Furnace temperature control* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Chargentrennung/ *Batch separation* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Ofenbeschickung/Übernahme ins System/ *Furnace charge/transfer to system* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |

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| **5** | **Walzprozess/ *Rolling process*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | Walzensteuerung/ *Rolling control* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Anzahl der Stiche/Walzendurchläufe/ *Number of passes/roller runs* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Entzunderungsdruck/ *Descaling pressure* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Entzunderungsstellen/ *Descaling points* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Vorwalzgerüst/ *Roughing stand* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Fertigwalzgerüste Duo/Universal/ *Finishing mill stands duo/universal* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Warmprobe/ *Hot sample* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Warmprofilprüfung/ *Hot profile test* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Warmstempelung (alle 10 m)/ *Hot stamping (every 10 m)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Walzenprüfung/ *Rolling test* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Walzzeichen (gemäß Norm)/ *Rolling mark (as per standard)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Abkühlbett/ *Cooling bed* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Quertransport/ *Cross transfer* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |

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| **6** | **Adjustage/Transport/Prüfung/** ***Finishing/transport/testing*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | Rollenrichten (> 800 mm; 7 Stück)/ *Roll straightening (> 800 mm; 7 units)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Länge abgeschnittenes Schienenende/ *Length of cut-off rail end* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Profilprüfung (kalt)/ *Profile testing (cold)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Oberflächenprüfung/ *Surface inspection* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Ultraschallprüfung/ *Ultrasonic inspection* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Wirbelstromprüfung/ *Eddy current testing* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Ebenheitsprüfung/ *Flatness testing* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Testschiene gemäß EN/ *Test rail as per EN* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Kennz. Schienenfehler (Farbe, System)/ *Identification mark Rail defect (colour, system)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Festgelegte Prüfempfindlichkeit (0,2 mm)/ *Specified test sensitivity (0.2 mm)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Nachweis Testschienendurchlauf/ *Proof of test rail pass* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Ebenheitsprüfung/ *Flatness testing* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Überprüfung der ZfP-Anlagen/ *Review of NDT equipment* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Überprüfung der ZfP-Mitarbeiter/ *Review of NDT employees* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Längstransport (Synchronlauf der Rollen)/ *Longitudinal transport (synchronous pass of rollers)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Enden richten/ *Straighten ends* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Endengeradheit/ *End straightness* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Verwindungsprüfung (letzter Meter)/ *Twist test (last metre)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Profilprüfung (Abnahme)/ *Profile test (acceptance)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Abnahmelehren (kalibriert)/ *Acceptance gauges (calibrated)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Enden gratfrei/ *Ends burr-free* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Kennzeichnung Schienen (Labeling)/ *Rail marking (labelling)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Transport (Hebezeuge)/ *Transport (lifting gear)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Oberflächenprüfung/ *Surface inspection* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | ZfP-Nachprüfung/ *NDT follow-up test* | [ ]  | [ ]  | [ ]  |       |
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| **7** | **Wärmebehandlung/ *Heat treatment*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | Prinzip der Wärmebehandlung/ *Heat treatment principle* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Erwärmung (Walzwärme, Induktiv)/ *Heating (rolling heat, inductive)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Transport/ *Transport* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Separates Abkühlbett/ *Separate cooling bed* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Steuerung WB-Prozess/ *Control of heat treatment process* | [ ]  | [ ]  | [ ]  |       |
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| **8** | **Prüfungen (gemäß DBS 918 254-1)/** ***Tests (as per DBS 918 254-1)*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | EN-Qualifizierungsprüfung alle 5 Jahre (akkreditiertes Prüflabor)/ *EN qualification test every 5 years (accredited testing laboratory)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Prüflabor (Name)/ *Testing laboratory (name)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Eigenspannungsprüfung (3 Monate ab Lieferbeginn alle 10 Jahre)/ *Residual stress test (3 months from start of delivery every 10 years)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Gestaltfestigkeitsprüfung (9 Monate ab Lieferbeginn alle 10 Jahre)/ *Strength depending on shape (9 months from start of delivery every 10 years)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Prüfungen bei DB Systemtechnik (5 x 3,20 m)/ *Tests at DB Systemtechnik (5 x 3.20 m)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Gleistest/ *Track test* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | EBA-Freigabe für nicht EN-Material/ *EBA approval for non EN material* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | EBA-Freigabe für nicht EN-Profil/ *EBA approval for non EN profile* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |
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| [ ]  | **Laborprüfungen (gemäß EN 13 674-1)/** ***Laboratory tests (as per EN 13 674-1)*** | **👍****☺** | **?****😐** | **👎☹** |  |
| [ ]  | Zugprüfung/ *Tensile test* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Härteprüfung/ *Hardness test* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Baumann-Abdruck/Schwefelabdruck/ *Baumann print/sulphur print* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Nichtmetallische Einschlüsse (K3)/ *Non-metallic inclusions (K3)* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Mikrogefüge/ *Microstructure* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Randentkohlung mittels Metallographie/ *Surface decarburisation using metallography* | [ ]  | [ ]  | [ ]  |       |
| [ ]  | Kerbschlagprüfung gemäß DBS 918 254-1/ *Notched-bar impact test as per DBS 918 254-1* | [ ]  | [ ]  | [ ]  |       |
| [ ]  |       | [ ]  | [ ]  | [ ]  |       |

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| **9** | **Produkte/ *Products*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | **Checkliste B A01/ *Checklist B A01*** | [ ]  | [ ]  | [ ]  |       |

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| **10** | **Produktprüfungen/ *Product tests*** | **👍****☺** | **?****😐** | **👎☹** | **Bemerkungen/ *Comments*** |
| [ ]  | **Checkliste B A02/ *Checklist B A02*** | [ ]  | [ ]  | [ ]  |       |

**Welches Walzzeichen verwendet die Firma?** (schwarz/weiß)/

***What rolling marking does the company use?*** *(black/white)*

**Weitere Bemerkungen:/**

***Additional comments:***

|  |  |  |
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| durchgeführt am/ *performed on**(dd.mm.yyyy)* | durchgeführt in/ *performed in* | durch QPI/ *by quality test engineer* |
|       |       |  |