



Technical delivery condition
Rolled permanent way components

DBS
918 025

Supersedes TL/BN 918 025-1,-2,-3

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Foreword

This Deutsche Bahn standard was drawn up by DB Netz AG, I.NVT 41 in collaboration with the DB AG's Quality Assurance department, TEI 21.

This Deutsche Bahn standard was previously published in three parts as a technical delivery condition/railway standard. This update merges the previous Parts 918 025-1, -2 and -3 in one DBS 918 025.

1 Scope

This Deutsche Bahn standard applies to rolled fish plates, ribbed plates and base plates. It is to be applied when first purchasing or approving these permanent way components as well as in connection with quality assurance at the factory.

2 Normative references

This Deutsche Bahn standard contains stipulations from other publications in the form of dated or undated references. These normative references are quoted in the respective positions in the text and the names of the publications are stated thereafter.

In the case of dated references, subsequent amendments or revisions to these publications only belong to this standard if they have been incorporated by means of amendment or revision. In the case of undated references, the latest version of the referenced publication applies (including amendments).

DIN EN 10 025-1	Hot-rolled products of structural steels; Part 1: General technical delivery conditions
DIN EN 10 025-2	Hot-rolled products of structural steels; Part 2: Technical delivery conditions for non-alloy structural steels
DIN EN 10163-1	Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections),-Part 1: General requirements
DIN EN 10163-3	Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections), Part 3: Sections
EN 10 204	Metallic products; types of inspection documents

3 Technical requirements

The conditions according to DIN EN 10 025-1 and -2 apply to the material.

With regard to the input material, verification of the existence of a 3.1 certificate according to EN 10 204 stating the chemical analysis and mechanical properties is to be provided prior to processing and the certificate presented upon request.

All rolled permanent way components must be manufactured according to DB AG's currently valid standard drawings. The rolled surfaces must be smooth and free of imperfections according to DIN EN 10163-1.

In exceptional cases, surface imperfections may be approved according to DIN EN 10163-3 Class "D" in consultation with DB AG.

The permanent way components are to be separated by sawing. Base plates may also be separated by shearing.

4 Marking

All rolled permanent way components shall be marked in accordance with the currently valid DB AG standard drawings.

5 Mechanical processing

Any burrs that occur on the products shall be removed.

6 Rolled fish plates

The fish plates shall be separated from the rolled bar by sawing.

7 Rolled ribbed plates and base plates

The holes in the ribbed plates must be drilled. In individual cases, the holes for the ribbed plates may also be punched (e.g. non-round holes in ribbed plates for the guard rail - slab track). The holes in the base plate may be drilled, milled or punched.

The sample rods shall be cut out in the direction of rolling. Samples shall be taken according to DIN EN 10 025-1.

8 Rolled rail clips

The holes in the base plate may be drilled, milled or punched. The stipulation that the permissible dimensional deviations in the standard drawings may not be exceeded on the exit side of the die also applies to punched holes.

The rail clips shall be separated from the rolled bar by sawing.

When qualifying new manufacturers (manufacturer-related product qualification), rail clips are to be tested using the folding test. In the folding test, rail clips are tested using a test set-up as shown in Fig. 1. DB AG is to be consulted regarding the number of samples. The load must be at least 60 kN. No cracks may occur during the test.

The apex line of the curve of the die must be in the direction of rolling.

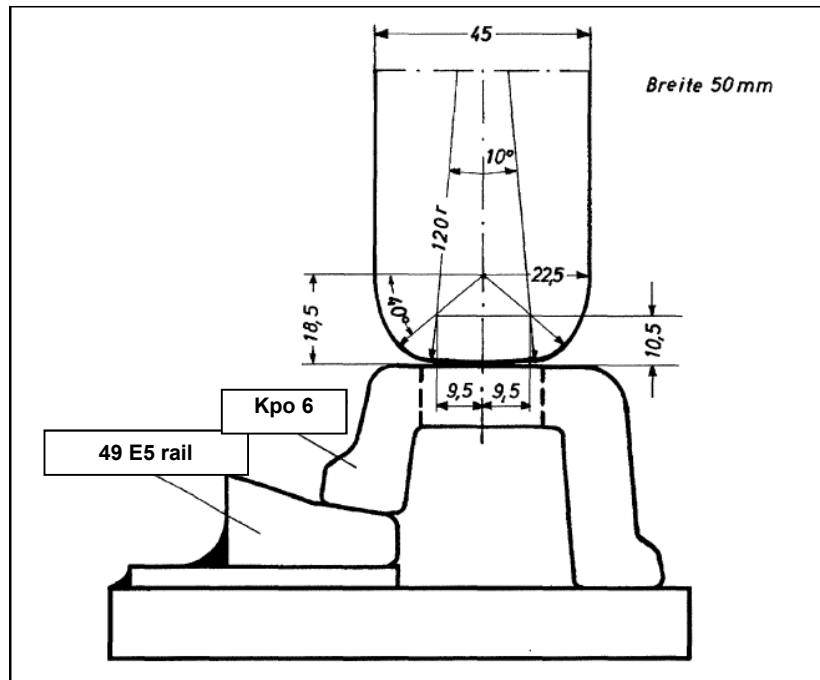


Fig. 1: Test set-up for the folding test (here taking a 49 E5 rail with Kpo 6 as an example)

9 Qualification of the manufacturer

For certain products (cf. List of permanent-way products subject to quality inspection), the manufacturer's capability to manufacture a product as specified in the contract shall be verified prior to the first delivery to DB AG. This shall take the form of a "manufacturer-related product qualification". The manufacturer-related product qualification shall be carried out by DB AG's Quality Assurance department (TEI 21). The manufacturer shall bear the cost of the manufacturer-related product qualification.

10 Quality assurance at the manufacturer's site

The manufacturer shall ensure the quality of the products on the basis of a secured process and an appropriate statistical process control. The body responsible for technical aspects at DB AG may demand additional tests.

Compliance with the requirements demanded by this DB standard shall be assured by means of test schedules and/or test plans and presented to DB AG upon request.

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