

Appendix C – Production Specifications

Main features and requirements for production and quality assurance standards:

- a) Only materials whose type, quality, workmanship and technical delivery conditions are prescribed in the drawings and contract documents may be used in the preparation of the wagon frame.
- b) Steel may only be purchased from qualified steelworks with a test certificate according to EN 10204 3.1.
- c) Hot-rolled products of non-alloy construction steels shall comply with the Technical Delivery Conditions according to DIN EN 10025:2005.
- d) Base materials and welding filler metals shall have a certificate according to EN 10204 3.1.
- e) Welding is to be based on the Technical delivery conditions for quality control of welded joints of steel vehicle parts according to ISO 3834, Parts 1 to 5 and according to DIN EN 15085-2. In addition, the design requirements for the welding of rolling stock and parts thereof according to EN 15085-3 apply. The minimum and maximum values for weld preparation must be observed.
- f) Welding works – Rules for the execution according to EN 15085-5.
- g) Welding procedures are compliant with norm EN 15609-1 and norms therein mentioned.
- h) Quality requirements for welding seams according to EN 15085-5 and ISO 5817.
- i) Materials, welding filler metals, welding procedures according to EN 15085-5.
- j) General tolerances for welded constructions according to EN ISO 13920. The tolerance class is indicated in the drawing documents.
- k) The qualification of the welders must comply with EN 287-1. Only qualified welders may be used. The welders must remain on the project and must not be replaced. The Customer reserves the right to carry out spot checks, or to have them carried out by delegated companies.
- l) General tolerances of components (machining and forming) according to DIN ISO 2768 Part I and II. The tolerance class is indicated in the drawing documents.
- m) Dimensional divisions and tolerances for surfaces subjected to autogenous torch cutting and for laser cutting surfaces according to EN ISO 9013-342. The tolerance class is indicated in the drawing documents.
- n) All individual parts of the components must first be sandblasted.
- o) The manufacturer undertakes to document compliance with the requirements of the drawing series and parts lists with regard to the types and grades of steel used. Material checks are to be carried out in good time before the start of production. The correlation between the sheets used and the point of installation on the wagon must be documented. Complaints by the Customer during such an on-site visit must be immediately eliminated by the supplier at his own expense.

- p) Painting plan. The paint system must be certified in accordance with Schedule no. 1 of this contract. Laboratory test reports must be provided in due time. Any alternative painting plans must be approved in advance by the Customer.

Mercitalia Intermodal S.p.A.
Gruppo Ferrovie dello Stato Italiane
Società soggetta alla direzione e coordinamento
di Ferrovie dello Stato Italiane S.p.A.

Sede Legale: Via Valtellina, 5/7 - 20159 Milano
Tel. 39 02 668951 - Fax 39 02 66800755
www.mercitaliaintermodal.it - E-mail: info@mercitaliaintermodal.it
Cap. Soc. € 7.000.000 i.v. - Codice Fiscale e Registro Imprese di Milano n. 00823190152
P.IVA IT 00857491005 - Milano R.E.A 0758334 - MECC. n. MI 325924

