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*Business #: EC\_9932*

*Customer: Va-Ko*

## **NOBO MISSION-CH1**

# **AUDIT REPORT**

**OF THE QUALITY MANAGEMENT SYSTEM (CERTIFIED ISO 9001)  
OF VA-KO**

**APPLIED TO THE INTEROPERABILITY CONSTITUENT:  
“RUNNING GEAR”**




## **BEYPAZARI AND TEMELLI SITES**

*CONFIDENTIAL*

LIST OF SUCCESSIVE ISSUES:

Version	Date	Changes
1	03/01/2021	Creation of document
2	14/01/2022	Internal Revision
3	24/01/2022	Updates following Commission's comments (§1, §5.3)

VALIDATION:

	Signature
Name: Nick SANTOS Function: Project manager	

*People who have written and checked this report (listed on the cover) approved it using secure electronic authorization, with CERTIFER's EDM software keeping a trace of it*

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### Appendix

#### Appendix 1: Record of opening and closing meetings attendees

# 1. Applicable documents and abbreviations

## Regulations

- Directive (EU) 2016/797 of the European parliament and the council of 11 May 2016 on the interoperability of the rail system within the European Union as amended
- COMMISSION REGULATION (EU) No 321/2013 of 13 March 2013 concerning the technical specification for interoperability relating to the subsystem 'rolling stock — freight wagons' of the rail system in the European Union and repealing Decision 2006/861/EC  
Amended by:
  - Commission Regulation (EU) No 1236/2013 of 2 December 2013
  - Commission Regulation (EU) 2015/924 of 8 June 2015
  - Commission Implementing Regulation (EU) 2019/776 of 16 May 2019
  - Commission Implementing Regulation (EU) 2020/387 of 9 March 2020Addressing in particular:
  - 5.3. Interoperability constituent specifications
- Commission decision of 9 November 2010 on modules for the procedures for assessment of conformity, suitability for use and EC verification to be used in the technical specifications for interoperability
- Regulation (EU) No 402/2013 of 30 April 2013 on the common safety method for risk evaluation and assessment and repealing Regulation (EC) No 352/2009 amended by Commission Implementing Regulation (EU) 2015/1136 of 13 July 2015
- Technical Document of ERA 000MRA1044 version 1.1 of June 2017
- NB-RAIL – Recommendation For Use : RFU-RST-097

## Standards:

- Standard NF EN ISO 9001:2015: "Quality Management System: Requirements".
- Standard NF EN ISO 19011:2012: "Guidelines for quality and/or environmental management systems audit".

## Other documents:

- CERTIFER Audit plan ref. EC\_9932\_0010\_03 issued on 24/01/2022

## 2. Audit description

### 2.1. Audit Scope

The quality audit described in this report is part of the mission recorded under the reference EC\_9932, detailed in the audit plan ref. EC\_9932\_0010\_03 issued on 24/01/2022.

The purpose of this quality audit was to establish if the quality management system of Va-Ko is effectively and correctly applied to “Rolling Stock – Freight Wagons” in application of module CH1.

### 2.2. Audit standards

The Quality Auditor has examined the conformity and the relevance of the pre-established dispositions to answer:

- to the applicable quality requirements of module CH1 of the TSIs, detailed in the harmonized standard ISO 9001,

and their implementation.

The Technical Expert has assessed the conformity and the relevance of methods and means (human and material) which are planned in order to fulfil:

- the requirements of the applicable TSIs.

and their implementation.

*Note 1: The conformity of the system to the safety requirements has not been determined during this audit, which purpose was only to assess the capacity of the quality management system to minimise human errors in installation phase of the system and to ensure the compliance to the safety requirements.*

*Note 2: CERTIFER took into account ISO9001 certification of Va-Ko, by reducing the duration of its on-site audit.*

### 2.3. Audit team

- Quality Auditor – Audit Leader: Gönül YILDIRIM
- Technical Expert: Burak KOÇ

### 2.4. Date of on-site audit

- Va-Ko Beypazari Site: Friday, the 24th of December 2021.
- Va-Ko Temelli Site: Friday, the 24<sup>th</sup> of December 2021.

### 2.5. Audit place

- Va-Ko Beypazari factory - Ankara Yolu 3.Km. - Beypazarı / Ankara – Turkey
- Va-Ko Temelli factory – Temelli Cad. No:91 Sincan / Ankara / Turkey

### 2.6. Attendees

See record of opening and closing meetings attendees in appendix 1.

### 3. Specific auditee's statements

- The Va-Ko plant's paper archives are stored at Ankara's head office and cannot be consulted at the plants.

#### 4.1. General presentation of the company and of the project/product

*Consulted documents during the audit:*

- ✓ *Va-Ko general presentation 29/11/2021*
- ✓ *OC-01 ORGANISATION CHART*
- ✓ *FC.16 Y25Lsdi(f)-KC1 H Bogie ORGANISATION CHART*
- ✓ *ISO Certificates*

Va-Ko Vagon Konteyner company was established in 2007. Va-Ko produces new freight wagons of several types (Sgnss, Sggmrs, Eanoss, Falns etc.). Currently Va-Ko made investment on a new facility which will be built in Beypazari as a manufacturing facility.

Va-Ko is also carrying out the maintenance of freight wagons and is ECM certificated according the EU 2019/779 regulation - Annex II - function IV.

The main clients for their freight wagons are KLN, MSC, ATIR, Mars Lojistik.

The main types of freight wagons Va-Ko which are produced are: Sgss-W Container-Platform wagon, Sggmrs Platform wagon, Eanoss Open Top wagon, Falns wagon, Laags-W Cotainer wagon, Ks-W Platform wagon.

Va-Ko also manufactures Y25Lsdi(f)-KC1 bogies for its own wagons, especially for the Sggmrs 90' project.

The company Va-Ko is composed of two different plants located in Beypazari and Temelli; the activities of the two plants are different and complementary. For this project, pre-production and manufacturing site is determined Beypazari but delivery and final assembly site is Temelli.

In 2021, Va-Ko has 121 blue collars and 18 white collar employees in Beypazari and Temelli sites combined.

Va-Ko holds the main following certificates: ISO9001, ISO14001, OSHAS18001, EN 15085-2 (Reports provided).

#### 4.2. Control of projects documents and records

*Consulted documents during the audit:*

- ✓ *Managing Documentation procedure PD.16 Rev02 20.04.2020*
- ✓ *HB.12 Rev07 16.06.2021 Integrated management system handbook*
- ✓ *LST.03 Rev01 01.07.2020 Documents Master List*

The list of applicable technical documents, drawings, welding maps, instructions for the manufacture of the Y25Lsdi(f)-KC1 bogie have been established. This list contains the reference and last version date of the document. The last revision of the documents are available for the employees in the facilities.

Va-Ko is planning a process that putting in place a new database ERP to store all the technical documentation.

Area of Concern N°1 : Some technical drawing concerning H type bogie is named wrongly. Entity needs to pay attention to the product name on the instructions and technical drawings.

Area of Concern N°2 : There is no traceability form for specifically prepared for the H type bogie. Traceability form was prepared for Sggmrs 90' wagon which includes the bogie, but it needs to be prepared for H type bogie.

Area of Concern N°3 : Bogies need to be numbered with a cold stamp or a label. Bogies used for the prototypes were numbered in the control forms, but it was evaluated as insufficient action.

### 4.3. Determination and review of requirements, customer communication

*Consulted documents during the audit:*

- ✓ *PD.15 Rev01 14.03.2016 CUSTOMER CARE PROCEDURE*
- ✓ *SGGMRS technical specification Mars Lojistik contract*
- ✓ *LST.19 Contract and Design Control List*
- ✓ *FRM.125 Welding Process Technical Evaluation Form*

Technical requirements of the customer's orders was submitted to customer (Mars Lojistik) with a "Technical Specification" format. This document explains the whole process, manufacturing lines, and itemizes consumable materials with their quality degrees including bogie specifications.

Control lists and technical evaluation for the H bogie manufacturing, have been performed by the entity.

### 4.4. Design and development

*Consulted documents during the audit:*

- ✓ *PD.02 Rev02 01.02.2021 Design and Development Procedure*
- ✓ *FRM.68 Rev04 Welding Control Forms (YK-001, YKS-001, BP-001, BH-001)*
- ✓ *WP.BG.01 Rev01 Bogie Pivot Bearing Welding Plan*
- ✓ *PD.22 Procedure of Technical Drawings Revision 16.02.2015*

Welding plans, work flows, WPS/PQR's for the H type bogie manufacturing have been prepared and documented by the entity. Positions and methods for the specific welding type were determined in the plans and control lists. In the welding control form, there is a visual control process for welding. When the inspector finds an imperfection on the welding line, the inspector reports the imperfection via this form to the Quality Engineer. In line with this, the entity performs overhauling activities on the welding line.

Design and Development procedure is in place for whole ongoing projects.

### 4.5. Resources and competencies management

*Consulted documents during the audit:*

- ✓ *LST.40 Rev03 04.10.2021 Competency Polyvalance*
- ✓ *PRD.17 Competency Management*
- ✓ *PD.21 Training & Education Pro cedure Rev0 04.11.2010*

- ✓ *LST.08 Competence Matrix (Blue Collar) Rev03 30.11.2021*
- ✓ *PL.10 Rev13 24.10.2020 VAKO 2021 Annual Training Plan*
- ✓ *PD.34 Management Responsibility Procedure*
- ✓ *Satı Nurettin CAĞLI YB0067/11UY0010-3/04/1659 Welding Test Certificate*
- ✓ *IIW Diploma of Alper KAPLAN Diploma no: TR/IWE/02-02032020-20*
- ✓ *Berat Semih Çoban TM-A-UT2-1-01229 UT Level II certificate 27.03.2025*
- ✓ *Koray Ürün 43596-2018 VT Level II Exp. Date 28.12.2023*

The job descriptions, authorities and responsibilities are defined for each employee. During the site inspections, some of the employee's names were recorded by CERTIFER team and cross-checked from the polyvalence and competency matrix.

Competency matrix has been examined and evaluated during the SD audit of Sggmrs subsystem. Since the SD audit, there was a short period of time between the current CH1 audit. So it was corrected by the entity pursuant to the NC Fiches submitted before.

Minor non-conformity n°1 §7.2: Polyvalence matrix for Beypazarı facility was not updated after recruitment or cease of employment.

#### 4.6. Purchasing and control of subcontractors

*Consulted documents during the audit:*

- ✓ *PD.04 Rev02 06.02.2021 Procurement Procedure*
- ✓ *FRM.29 Supplier Evaluation List 2021*
- ✓ *LST.15 Rev01 05.01.2012 Supplier Evaluation Form*
- ✓ *HB.09 Subcontracted Activities Handbook*
- ✓ *PD.40 Rev0 16.02.2015 Supplier Selection and Evaluation Procedure*
- ✓ *CE certificate of 10 mm rolled steel*

The criteria for supplier selection are defined. The suppliers are evaluated on an annual basis on defined criteria. When the results of the annual evaluation are not conforming to the internal requirement of the evaluation, the supplier is black listed. The list of approved suppliers is defined.

Consumables for the project have been determined in BoM List and their quality degrees and certificates have been delivered to the Vako. CE certificates of some consumables have been examined during the audit as exemplary.

#### 4.7. Manufacturing

*Consulted documents during the audit:*

- ✓ *FC.12 Bogie Flowchart Rev0 30.10.2020*
- ✓ *BoM List for Y25 bogie*
- ✓ *LST.04 Rev09 01.11.2021 Calibration Tracing List*
- ✓ *List of measurement instruments*
- ✓ *PL.03 Quality Assurance Plan*
- ✓ *PL.04 Quality Control Plan Rev01 01.05.2020*
- ✓ *PL.12 Production Phase Plan Rev01 01.11.2020*
- ✓ *Y25 bogie assembly/welding plan*
- ✓ *PD.10 Control of the monitoring and measurement devices*
- ✓ *Y25 Bogie control form (from Sggmrs 90' Dossier)*
- ✓ *FRM.113-4 Traceability of Y25 Bogie*



- ✓ *AB38866-21 Bridge Cam Gage 09..03.2021*
- ✓ *Pakkens 16.06.2021 280715-125467/0129 Manometer*
- ✓ *PL.18 15.06.2021 Y25 Bogie Inspection and Test Plan*
- ✓ *Plasma cutting machine production plan*
- ✓ *FRM.96 Welding machine verification form*

The list of measurement instruments used in the plant is in place. The measurement instruments are identified and calibrated on an annually basis due to the PD.10 Control of the monitoring and measurement devices. All the calibrations are carried out by an accredited laboratory. All calibration certificates are stored and available.

Minor non-conformity n°2 §7.1.5.2: In order to validate previous or ongoing measurements, measurement instruments should be able to be traceable. In control forms related to H bogie, there are no recordings concerning measurement instruments.

The welding machines are annually calibrated too. The used welding machines seen in the workshops are in their validity period.

Minor non-conformity n°3 §8.5.1: During the audit, H type bogie final check forms couldn't have been examined. There is a control procedure for the related subsystem wagon, but it has to be applied specifically for IC's either.

Welding plans of the H bogie have been examined. Filled H bogie control forms for the prototype wagons (Sggmrs 90') submitted to the audit team and copies have been taken. WPS/PQR of the welding have been seen in the workshop and on the welding machines.

Minor non-conformity n°4 §7.5.3.1: There are missing instructions on their benches for the bending machine and plasma cutting machine. Also, some preparations and finishing processes (grinding, chip cutting, flame cutting) are missing in the instructions.

PL.03 Quality Assurance Plan and PL.04 Quality Control Plan have been seen during the audit. Requirements and allocations for the processes have been done by the entity.

Minor non-conformity n°5 §7.1.4: In workshop, some personnel have been detected while they don't use their personal protective equipments.

Minor non-conformity n°6 §8.5.4: Storage of the spare parts or brand-new ones has been reviewed as insufficient and uncareful. Some materials are rusted cause of weather conditions and other factors. Personnel must be appointed for the managing of storage activities.

Minor non-conformity n°7 §7.1.5.2: Even if workers cannot validate the results of measurements, their instruments (tape measurement) must be checked or calibrated.

In Bey pazarı site, mostly semi-product and pre-production processes are going on. H type bogie parts are manufactured and assembled in Bey pazarı and, transported to the Temelli site for delivery to the customer.

## 4.8. Monitoring and measurement process

Consulted documents during the audit:

- ✓ Some non-conformity examples (Sggmrs 90')
- ✓ PD.24 Internal Audit Procedure
- ✓ PD.34 Management Responsibilities Rev01 22.05.2018
- ✓ PD.03 Rev1 02.04.2020 Control of the Records
- ✓ PD.39 Risk- Change Management- Safety Targets
- ✓ Safety Targets and Risk Analysis Matrix

Non-conformity occurred during the Sggmrs 90' SD Audit have been handled by the Vako in a short period of time. Also, corrective actions and evidences have been examined during the CH1 audit.

Risk analysis matrix was updated after the corrective actions done by Vako.

## 4. Audit results

### 5.1. Strengths

- The general quality of the manufacturing
- The expertise in railway vehicles

### 5.2. Area of concern

*Improvement opportunities for which CERTIFER will not necessarily require short term actions. However, those subjects could be reconsidered later to check their actual seriousness.*

Area of Concern N°1 : Some technical drawing concerning H type bogie is named wrongly. Entity needs to pay attention to the product name on the instructions and technical drawings.

Area of Concern N°2 : There is no traceability form for specifically prepared for the H type bogie. Traceability form was prepared for Sggmrs 90' wagon which includes the bogie, but it needs to be prepared for H type bogie.

Area of Concern N°3 : Bogies need to be numbered with a cold stamp or a label. Bogies used for the prototypes were numbered in the control forms, but it was evaluated as insufficient action.

### 5.3. Non-Conformities

*The answer given by the auditee is not fully satisfactory, but it is not a critical non-conformity. A minor non-conformity will not make CERTIFER refuse the issuing of a positive advice, providing that a suitable corrective action has been planned. However, several minor non-conformities on a unique subject may be unacceptable.*

- Minor Non-Conformities:

Minor non-conformity n°1 §7.2: Polyvalence matrix for Beypazarı facility was not updated after recruitment or cease of employment.

Minor non-conformity n°2 §7.1.5.2: In order to validate previous or ongoing measurements, measurement instruments should be able to be traceable. In control forms related to H bogie, there are no recordings concerning measurement instruments.

Minor non-conformity n°3 §8.5.1: During the audit, H type bogie final check forms couldn't have been examined. There is a control procedure for the related subsystem wagon, but it has to be applied specifically for IC's either

Minor non-conformity n°4 §7.5.3.1: There are missing instructions on their benches for the bending machine and plasma cutting machine. Also, some preparations and finishing processes (grinding, chip cutting, flame cutting) are missing in the instructions.

Minor non-conformity n°5 §7.1.4: In workshop, some personnel have been detected while they don't use their personal protective equipments.

Minor non-conformity n°6 §8.5.4: Storage of the spare parts or brand-new ones has been reviewed as insufficient and uncared. Some materials are rusted cause of weather conditions and other factors. Personnel must be appointed for the managing of storage activities.

Minor non-conformity n°7 §7.1.5.2: Even if workers cannot validate the results of measurements, their instruments (tape measurement) must be checked or calibrated.

- Major Non-Conformities:

No major non-conformities were identified.

## 5. Conclusion

The audit took place in an excellent conditions; all planned points have been audited.

The quality management system of Va-Ko is correctly applied to “Y25Lsdi(f)-KC1 H type bogie” according to module CH1.

The auditors have confidence in Va-Ko's ability to manufacture the Y25Lsdi(f)-KC1 H type bogie in accordance with the applicable standards, directives and regulations.

## 6. Audit Follow up

Depending on the conversation between Va-Ko and CERTIFER audit team during the audit, all non-conformities shall be closed in max. two weeks after receiving the non-conformity forms.

• APPENDIX 1



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AUDITS: attendees list

Place: *KaKo Beypazari*

Date: *24/12/2021*

First Name and NAME	Company	Role
<i>Koray Dren</i>	<i>VA-KO</i>	<i>Directu Müdürü</i>
<i>İrem Nur Getiner</i>	<i>VA-KO</i>	<i>Kalite Yönetim Temsilcisi</i>
<i>Burak KOÇ</i>	<i>Certif</i>	<i>Teknik Denetçi</i>
<i>Gönül YILDIRM</i>	<i>Certif</i>	<i>Kalite Başdenetçisi</i>

*Minor AC AOC*  
*7 3*

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