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Business #: EC_9875

Customer: Va-Ko

NOBO MISSION-SD

AUDIT REPORT

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

APPLIED TO THE SUBSYSTEMS:
“ROLLING STOCK – FREIGHT WAGONS”
AND “ROLLING STOCK – NOISE”




BEYPAZARI AND TEMELLI SITES

CONFIDENTIAL

LIST OF SUCCESSIVE ISSUES:

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1	03/12/2021	Creation of document

VALIDATION:

	Signature
Name: Jean-François KREMER 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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1. Applicable documents and abbreviations

Regulations

- DIRECTIVE (EU) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union.
- 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.
- Commission Regulation (EU) No 1236/2013 of 2 December 2013 concerning the technical specification for interoperability relating to the subsystem 'rolling stock — freight wagons' of the rail system in the European Union and amending Regulation (EU) No 321/2013.
- Commission Regulation (EU) 2015/924 of 8 June 2015 amending Regulation (EU) No 321/2013 concerning the technical specification for interoperability relating to the 'rolling stock — freight wagons' subsystem of the rail system in the European Union.
- Commission implementing regulation (eu) 2019/776 of 16 May 2019
- Commission implementing regulation (eu) 2020/387 of 9 March 2020
- Commission Regulation (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem "rolling stock – noise" amending Decision 2008/232/EC and Decision 2011/229/EU.
- Commission implementing regulation (eu) 2019/774 of 16 May 2019
- ERA Technical Document, 000MRA1044 version 1.1 14/06/2017;

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. EC9875_0029_1 issued on 17/11/2021

2. Audit description

2.1. Audit Scope

The quality audit described in this report is part of the mission recorded under the reference EC_9875, detailed in the audit plan ref. EC_9875_0029_1_AP issued on 17/11/2021.

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” and “Rolling Stock – Noise” Subsystems in application of module SD.

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 SD 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: Monday, the 29th of November 2021.
- Va-Ko Temelli Site: Monday, the 29th of November 2021.

2.5. Audit place

- Va-Ko Beypazari factory - Ankara Yolu 3.Km. - Beypazarı / Ankara – Turkey
- Va-Ko Temelli factory - Bacı Mahallesi, Bacı Yolu Serpmeleri - Mevkii, Tren Yolu Kenarı - Temelli - 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 SGGMRS 90' PROJECT ORGANISATION CHART (Sggmrs)*
- ✓ *TSI Certificate - Quality Management System Approval (Sgnss) 03.12.2018*

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.

Two prototypes of this Sggmrs Articulated-Platform wagon have been manufactured in order to have a TSI certificate for related subsystem.

Va-Ko also manufactures Y25Lsi(f) bogies for its own wagons and as spare part for other customers (but not as a regular activity).

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.

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

Some activities are subcontracted:

- İTÜ (Istanbul Technical University): Tests (non-accredited entity)

There has been no modification of the design of the bogie (based on the description of the UIC Y25 bogie) but a limitation arising from assembling has been detected on Sggmrs prototype during manufacturing. Some welding lines were reported as not applicable because of their positions. Nevertheless, welding map of these parts have been changed by R&D department and the situation was brought under control.

Va-Ko holds the main following certificates: ISO9001, ISO14001, OSHAS18001, EN15085-2 (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 Sggmrs Platform wagon 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.

The quality management system documentation were prepared by several Quality Engineers which makes the system very complicated. However, the system itself is comprehensive and detailed.

Minor non-conformity n°1 7.5.3.2: During the audit, the archive was requested to be examined. But within the archive procedure, the limits for the keeping the old-revised documents were not described and mentioned. This may cause the damage to legibility of these old-revised document.

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*

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.

Customer care procedure describes communication between involved part including sub-contractors, suppliers and customers.

4.4. Design and development

Consulted documents during the audit:

- ✓ *PD.02 Rev02 01.02.2021 Design and Development Procedure*
- ✓ *Welding Maps*
- ✓ *Sggmrs 90' welding line positioning changes*
- ✓ *PD.22 Procedure of Technical Drawings Revision 16.02.2015*

The Sggmrs Platform wagon prototypes are manufactured according to defined drawings. During welding process, an impossibility has been reported to superiors by welding crew. A beam assembly made some welding lines impossible to be performed welding. R&D department has taken an action about situation and related welding lines and maps have been changed by welding engineers. This readjustment has not evaluated as configuration or excessive change.

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 Procedure Rev0 04.11.2010*
- ✓ *LST.07 Competence Matrix Rev05 04.10.2021*
- ✓ *LST.08 Competence Matrix (Blue Collar) Rev02 4.102021*
- ✓ *PL.10 Rev13 24.10.2020 VAKO 2021 Annual Training Plan*
- ✓ *PD.34 Management Responsibility Procedure*
- ✓ *Göktuğ Özkan DKR-WQT-2020-707 Welding Certificate 07.06.2023*
- ✓ *Yusuf Çetin DKR-WQT-EN-2020-703 Welding Certificate 07.06.2023*
- ✓ *FRM.158 Rev0 Orhan Taşkın and Sadık Gavaş Initial Training Form*
- ✓ *Berat Semih Çoban TM-A-UT2-1-01229 UT Level II certificate 27.03.2025*
- ✓ *Arif Göçmen 43599-2018 UT Level II certificate 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 it's been seen as updated a short time ago. PD.17 Competency Management procedure evaluated. Competency rating was described by Va-Ko Quality Management team to CERTIFER audit members. Va-Ko uses 1 to 4 degree to define employee's competency to perform related activities and records these ranks on polyvalence lists.

Minor non-conformity N°2 7.2: Evaluation of employees are described neither in procedure nor polyvalence lists. The employee 1-4 ranking system has to be built on a numeric system. Despite this, the criteria of this ranking system has been prepared, but it needs to be integrated with a numeric system that we have mentioned before.

Minor non-conformity N°3 7.2: Training program 2021 has been examined. However, scheduled trainings were not performed due to the tight schedule of delivering the products to several customers. In line with this, records of trainings were not examined.

Minor non-conformity N°4 7.1.2: Deputation of the job activities have not been described name by name. All job activities shall be allocated name by name to the qualified people, and these activities shall have at least one deputy in order to ensure continuity. In the current list, deputations were made to the titles not for the authorized people.

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*
- ✓ *All IC's TSI certificates (wheel, draw gear, brake shoe, bogie etc..)*
- ✓ *PT, MT sub-contracted activity (TÜV AUS Sila Kalite)*

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.

All of the IC certificates (wheel, axle box, brake equipments..) were submitted to the CERTIFER audit team.

Area of concern n°1: Purchasing request shall be submitted with a form to the related department and this document shall be recorded in QMS system.

Depending on its own will, Va-Ko performed UT and MT activities on related project by using a third party inspection body, Sila Kalite. UT and MT reports are available on-site.

Minor non-conformity N°5 8.4.2: Subcontracted activities are not audited and evaluated by Va-Ko. Sub-contracted activities shall be evaluated like supplier selection/activities.

4.7.Manufacturing

Consulted documents during the audit:

- ✓ *FC.15 Sggmrs Flowchart 1.11.2020*
- ✓ *FRM.59-1 Sggmrs Final control form 04.09.2020 Rev0*
- ✓ *LST.04 Rev09 01.11.2021 Calibration Tracing List*
- ✓ *PD.10 Control of measurement instruments Rev01 11.06.2020*
- ✓ *PD.45 Verification of Equipment/Devices Rev01 12.08.2020*
- ✓ *List of measurement instruments*
- ✓ *Sggmrs wagon & Y25 bogie assembly/welding plan*
- ✓ *Sggmrs prototype quality control dossier*
- ✓ *AB38866-21 Bridge Cam Gage 09..03.2021*
- ✓ *Pakkens 16.06.2021 280715-125467/0129 Manometer*
- ✓ *TECban -/AP43244-21 16.06.2021 Digital Manometer*
- ✓ *PL.18 15.06.2021 Sggmrs Freight Wagon Inspection and Test Plan*
- ✓ *KP71 Wagon complete Frame Welding Plan*
- ✓ *FRM.96 Welding machine verification form*
- ✓ *Sggmrs 90' FRM.156-1 Rev0 04.11.2020*

The list of measurement instruments used in the plant is in place. The measurement instruments are identified and calibrated on an annually basis.

Minor non-conformity N°6 7.1.5.2: LST.04 Calibration Tracing List has been evaluated by audit team. Tracing list is way too much complicated to understand, and some of the equipment's status stands unidentified. The list that Va-Ko uses shall be more clear, and easy to understand.

All the calibrations are carried out by an accredited laboratory. All calibration certificates are stored and available.

Minor non-conformity N°7 7.1.5.2: Some equipments used by on-site personnel don't have the indicator labels that show its calibration date. Although the test benches are checked on a regularly basis, there are no label/mark on them that indicates whether the test bench is conform and can be used by the employees.

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

Minor non-conformity N°8 7.5.3.2: Instructions of welding machines are missing on the machine itself. Workers reported that they lost because of dirt and grease on their hand, and sometimes wind in the facility may make it happen.

Final check forms of Sggmrs prototype wagon has been examined during the audit. Control forms prepared detailed and on point.

Minor non-conformity n°9 8.5.2: Measurement instruments shall be recorded on the control forms. When any mismeasurement is detected, the validity of the previous measurements are controlled by this way.

Measurement instruments are regularly checked internally in order to ensure there is no deviation before using these equipments.

PL.18 Quality plans of Sggmrs has been prepared by Va-Ko. Every single phase has been described and visualised in the plan.

Area of concern n°2: During the on-site inspection, production area is found irregular. There are multiple projects ongoing in the facility at the same time and this can cause the disorder. Every single projects consumables (sheet metals, thread, braking equipments..) shall be stowed separately in the production area.

4.8. Monitoring and measurement process

Consulted documents during the audit:

- ✓ *Some non-conformity examples*
- ✓ *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*

A non-conformity concerning welding impossibility has been reported to the related branch by using non-conformity form. In 4.7 heading, the solution was explained. This situation was considered as solved.

Minor non-conformity n°10 10.3: Risk analysis matrix was not updated in 2021. All relevant activities have to be reviewed, and updated version of risk analysis shall be released.

Major non-conformity n°1 9.2: Internal audits have been mentioned in the PD.24 Internal Audit procedure but in 2021 none of them have been performed by Va-Ko.

Major non-conformity n°2 9.3: Management review has not been performed by Va-Ko in 2021 even though this process was mentioned in related procedure.

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: Purchasing request shall be submitted with a form to the related department and this document shall be recorded in QMS system.

Area of concern n°2: During the on-site inspection, production area is found irregular. There are multiple projects ongoing in the facility at the same time and this can cause the disorder. Every single projects consumables (sheet metals, thread, braking equipments..) shall be stowed separately in the production area.

5.3.Remarks

The answer given is not fully satisfactory, but it is not a non-conformity in terms of "criticality". A remark will not make CERTIFER refuse the issuing of a conformity certificate if a corrective action has been done. However, several remarks on a unique subject can be a reason to refuse the issuing of a conformity certificate.

- No remarks was identified

5.4.Non-Conformities

The answer given by the audite 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.

- Major Non-Conformities:

Major non-conformity n°1 9.2: Internal audits have been mentioned in the PD.24 Internal Audit procedure but in 2021 none of them have been performed by Va-Ko.

Major non-conformity n°2 9.3: Management review has not been performed by Va-Ko in 2021 even though this process was mentioned in related procedure.

- Minor Non-Conformities:

Minor non-conformity n°1 7.5.3.2: During the audit, the archive was requested to be examined. But within the archive procedure, the limits for the keeping the old-revised documents were not described and mentioned. This may cause the damage to legibility of these old-revised document.

Minor non-conformity N°2 7.2: Evaluation of employees are described neither in procedure nor polyvalence lists. The employee 1-4 ranking system has to be built on a numeric system. Despite this,

the criteria of this ranking system has been prepared, but it needs to be integrated with a numeric system that we have mentioned before.

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Minor non-conformity N°8 7.5.3.2: Instructions of welding machines are missing on the machine itself. Workers reported that they lost because of dirt and grease on their hand, and sometimes wind in the facility may make it happen.

Minor non-conformity n°9 8.5.2: Measurement instruments shall be recorded on the control forms. When any mismeasurement is detected, the validity of the previous measurements are controlled by this way.

Minor non-conformity n°10 10.3: Risk analysis matrix was not updated in 2021. All relevant activities have to be reviewed, and updated version of risk analysis shall be released.

5. Conclusion

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

The quality management system of Va-Ko is correctly applied to "Rolling Stock – Freight Wagons" and "Rolling Stock – Noise" Subsystems according to module SD.

The auditors have confidence in Va-Ko's ability to manufacture the Sggmrs 90' Articulated-Platform wagon 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 a week after receiving the non-conformity forms.

• APPENDIX 1



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AUDITS: attendees list

Place: *Va-Ko*

Date: *29/11/2021*

First Name and NAME	Company	Role
<i>Burak KOÇ</i>	<i>Certifer Türkiye</i>	<i>Technical Assessor</i>
<i>Gönül YILDIRIM</i>	<i>Certifer Türkiye</i>	<i>Quality Lead Assessor / Audit leader</i>
<i>İrem Nur GETİNER</i>	<i>Va-Ko Vagon</i>	<i>Quality Assurance Engineer</i>
<i>Bişra Buse ÜSTÜN</i>	<i>Va-Ko Vagon</i>	<i>Project Coordinator</i>
<i>Beat Deniz Cabar</i>	<i>Va-Ko Vagon</i>	<i>Quality Control</i>
<i>Kübra GÖMÜN</i>	<i>Va-Ko Vagon</i>	<i>Intern Engineer</i>
<i>Mert TÜRKKAN</i>	<i>Certifer Türkiye</i>	<i>Technical Specialist</i>
<i>Major NC</i>	<i>Minor NC</i>	<i>AdC</i>
<i>2</i>	<i>10</i>	<i>2</i>

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