Clause-by-Clause Comment - Cover sheet

| Customer: | ALSTOM | | | | | | | |
|-----------------------------|---------------------------|--|--|--|--|--|--|--|
| Project name: | KUNDENSPEZIFISCH | E DOKUMENTE | | | | | | |
| Voith project ID: | intern | | | | | | | |
| Specification title: | | Railway Applications: Assemblies Management | | | | | | |
| Specification file name | DTRF150212_F_EN.pdf | | | | | | | |
| Specification revision: | F | | | | | | | |
| Specification date: | 6/26/2022 | | | | | | | |
| Main responsible for th | is CbC comment at V | oith Turbo: | | | | | | |
| Name: | Vladimir Schein | | | | | | | |
| Function: | Product Manager AP | | | | | | | |
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| Telephone: | | | | | | | | |
| Company address: | J.M. Voith SE & Co. k | (G VTA | | | | | | |
| | Gottfried-Linke-Str. 2 | 205, 38239 Salzgitter, Germany | | | | | | |
| Revision of this CbC: | 00 | | | | | | | |
| Date: | 11.04.2024 11:45:46 | 6 | | | | | | |
| History of revisions of thi | s ChC-document: | | | | | | | |
| Revision Date | Reason for change | Description of change | | | | | | |
| 00 | reason for enange | First issue | | | | | | |
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Clause-by-Clause Comment

| Revision | 00 | | | Pr | ojec | t na | me: | KUNDENSPEZIFISCHE DOKUMENTE | SAP-ID: | intern | |
|----------|---------------------------------|-----------|----------------------------|----|----------------|----------------|----------------------|--|--|---------------------|--|
| Date: | 11.04.2024 11:45:46 | | | | | | | jinal document title: | Revision: | F | |
| | | Alst | Alstom Standard for Railwa | | | d for | Rai | lway Applications: Assemblies and Parts | Date: | 6/26/2022 | |
| | | | | | | I | Crit | icality Management | | | |
| | | | | | | | Sa | | | | |
| Clause | Clause title PURPOSE | We comply | We comply, but | 1 | < Noted | Not applicable | Clarification necess | Comment Voith | VT-internal note: commented by VT department | Comment Customer | Agreed and final comment (only necessary if a "Comment Customer" is given) |
| 2 | NORMATIVE REFERENCES | +- | | +- | ^ | _ | _ | | | | |
| 2.1 | STANDARD REFERENCES | | | | X | | | | | | |
| | ALSTOM STANDARD REFERENCES | | | | X | | | | | | |
| 3 | TERMS AND DEFINITIONS | - | - | - | - | - | - | | | | |
| | SAFETY LEVEL | | Х | | | | | Risk classes for bolted connections according to DIN25201-1. Risk classes for bonded connections according to DIN 6701-3. Considering welding - safety classification accoring EN15085. | | | |
| 3.2 | SRIL | | Х | | | | | Every bolted connection will get a risk class according to DIN25201-1. This risk class will be mentioned in the drawing. SRIL will be provided as well known document from Voith with identification of safety relevant parts only. Marking only according to DIN25201-7 | | | |
| 3.3 | SAFETY LOGO | | X | | | | | Marking only according to DIN25201-7. Marking of risk class H bolted connections only according to DIN25201-7. Risk class will be mentioned in every assembly drawing and has impact on claculation, documentation, assembly, quality | | | |
| | REDUNDANCY AND FALL ARRESTER | | X | | | | | control and maintenance. Generally agree, but Voith works according to internal work instructions about backup systems. Deviations may happed in cases of standardized interfaces, e.g. coupler to vehicle conection. See separate CbC to refered DTRFs. | | | |
| 3.5 | STACKED ASSEMBLIES | Х | | | | | | · | | | |
| 4 | PROCESS OVERVIEW | | X | | | | | Generally agree, but Voith works according to internal work instructions about declassification considering similar logic. See separate CbC to refered DTRFs. Process roles according to internal hierarchie. | | | |

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| Date: | 11.04.2024 11:45:46 | | | | | | Orio | ginal document title: | Revision: | F | |
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| | | Alstom Standard for Ra | | | | | Rai | lway Applications: Assemblies and Parts | | 6/26/2022 | |
| | | | Critical | | | | | icality Management | | | |
| | | | | | | | Sar | | | | |
| Clause | Clause title | We comply | We comply, but | We do not comply | Noted | Not applicable | Clarification necess | Comment Voith | VT-internal note: commented by VT department | Comment Customer | Agreed and final comment (only necessary if a "Comment Customer" is given) |
| 5 | DESIGN CONCEPTS AND SAFETY LEVELS IDENTIFICATION FOR FALL OF PARTS OR COLLISION HAZARDS | | | | X | | | See separate CbC to refered DTRFs. | | | |
| | CAR BODY SHELL | | <u> </u> | | | Χ | | | | | |
| | ELECTRICAL CUBICLE FRAME | - | <u> </u> | | | Χ | | | | | |
| 5.3 | EQUIPMENT | | X | | | | | If fasteners for coupler to carbody connections will be provided from Voith, Voith prefer to use standard fasterners acc. ISO4014/4017/7040 and will also provide bolt calculation. | | | |
| | CABLING AND PIPING | | | | Х | | | | | | |
| | PROJECT DELIVERABLES | - | - | - | - | - | - | | | | |
| | DESIGN DELIVERABLES | | X | | | | | Every bolted connection will get a risk class according to DIN25201-1. This risk class will be mentioned in the drawing. Considering bonding - safety clas according to DIN6701 (EN17460). Identification / documentation accoring in drawing according to Voith Standard. Considering welding - Class of testing, classification level, performance class and identification in drawing accoring | | | |
| | ENGINEERING JUSTIFICATION FILE | | X | | | | | by the nation, check and release of bolt calculations and reports according to Voith data system in STEP. Documentation according to internal | | | |
| | MANUFACTURING AND MAINTENANCE JUSTIFICATION FILE | | Х | | | | | quidelines Regarding manufacturing see CbC to refered DTRFs. Regarding maintenance see user manual. | | | |
| | EXPORTED CONSTRAINTS | - | - | - | - | - | - | | | | |
| | DESIGN AND MANUFACTURING BY ALSTOM | | X | | | | | See separate CbC to refered DTRFs. | | | |

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| | | Alst | om : | Stan | dar | d for | Rai C <u>r</u> it | lway Applications: Assemblies and Parts icality Management | Date: | 6/26/2022 | |
| | | | | | | | Sa | | | | |
| Clause | Clause title | We comply | We comply, but | We do not comply | Noted | Not applicable | Clarification neces | Comment Voith | VT-internal note: commented by VT department | Comment Customer | Agreed and final comment (only necessary if a "Comment Customer" is given) |
| | EXPORTED CONSTRAINTS FOR SUPPLIERS | | X | | | | | Supplier deliveries are standard as in previous projects - validation plan and all included test and calculation reports, RAMS documentation, bolt calculations. FMEA can be shown during FAI. See separate CbC to refered DTRFs. | | | |
| 8 | EXECUTIVE SUMMARY | - | - | - | - | - | - | | | | |
| 8.1 | PROCESS SUMMARY | | | | Х | | | | | | |
| 8.2 | ITEMS TO CHECK | | | | Χ | | | | | | |
| | APPENDICES | - | - | - | - | - | - | | | | |
| 9.1 | DIRECT MOUNTING REFERENCES | | | | Х | | | | | | |
| | EXAMPLE OF "POSITIVE SUPPORT" EQUIPMENT MOUNTING | | | | Х | | | | | | |
| 9,3 | EXAMPLE OF ANTI-FALL SYSTEM | | | | Χ | | | | | | |

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Clause-by-Clause Comment - Definitions

| We comply: | Clause is applicable to Voith's scope of supply and will be met |
|-------------------|--|
| | Clause is applicable to Voth's scope of supply but will only be met partially, see "Comment" |
| Noted: | Clause has been noted, but does not require a specific action by |
| We do not comply: | প্রাটাঃe is applicable to Voith's scope of supply but will not be |
| Not applicable: | ণ্ৰেছাse is not applicable to Voith's scope of supply |
| | Requirement is unclear and needs to be clarified between Voith and customer |