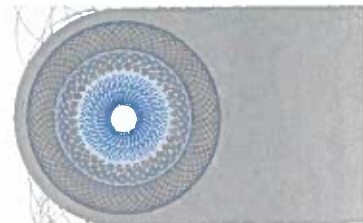




VÝZKUMNÝ  
ÚSTAV  
ŽELEZNIČNÍ, a. s.



# Intermediate Statement of Verification EC Type Examination

**Certificate Number:** 1714 / 8.1 / SB / 2015 / RST / EN / 1696

In accordance with Directive 2008/57/EC of 17 June 2008  
(as amended).

**Object of Assessment:** Subsystem 'Rolling Stock'  
Draw hook, draw gear and low draw gear 1000 kN

**Applicant:** TREVA s.r.o.  
seated at Prakovce 13, 055 62 Prakovce, Slovak Republic

**Manufacturer:** See Annex of Certificate 1714 / 8.1 / SB / 2015 / RST / EN / 1696

**Manufacturing Location:** See Annex of Certificate 1714 / 8.1 / SB / 2015 / RST / EN / 1696

**Assessment Requirements:** TSI RST WAG: Commission Regulation (EU) No 321/2013 including  
additional optional conditions of Appendix C, as amended  
by Commission Regulation (EU) No 1236/2013 and Commission  
Regulation (EU) 2015/924

**Exemptions from Assessment:** None

**Module applied:** Module SB according to Commission Decision 2010/713/EU

**Assessment Result:** The requirements fulfilled

**Restrictions and Conditions:** Without restrictions

**Annex of EC Certificate:** 1714 / 8.1 / SB / 2015 / RST / EN / 1696-P issued 17.06.2019

**Assesment Report:** ZZA15084RST-2 issued 17.05.2019

**Validity:** 24.06.2019 - unlimited

This certificate is valid for the object of assessment as mentioned  
above and as long as the object of assessment and the relevant  
technical documentation are not modified.

This certificate supersedes certificate  
No. 1714 / 8 / SB / 15 / RST / EN / 1696 of 27.10.2016.



**Date of Issue:**  
17.06.2019

**Signature:**

**Name:** Ing. Ondřej Fanta, Ph.D. **Title:** Technical Director  
On behalf of Výzkumný Ústav Železniční, a.s.  
seated at Praha 4, Braník, Novodvorská 1698, PSČ 142 01, Czech Republic  
EC-Identification No. of Notified Body: 1714



**Object of Assessment:**

Subsystem 'Rolling Stock'

**Draw hook, draw gear and low draw gear 1000 kN**

**Restrictions and Conditions:**

Without restrictions.

**Manufacturer:**

1. TREVA s.r.o. (*forging and completion of the product assemblies*)
2. ZLH Plus, a.s. (*foundry – support plate*)
3. WEP Trading a.s. (*machining*)
4. FRESO comp., s.r.o. (*machining*)
5. SEZ Krompachy a.s. (*surface finish*)

**Manufacturing Location:**

1. Prakovce 13, 055 62 Prakovce, Slovak Republic
2. Zlievarenská 533, 976 45 Hronec, Slovak Republic
3. Hollého 27, 083 01 Sabinov, Slovak Republic
4. Matiční 8, 742 13, Studénka – Butovice, Czech Republic
5. Hornádska 1, 053 42 Krompachy, Slovak Republic

**Overview of main characteristics:**

- Draw hook 1000 kN (L = 530 mm) - drawing ..... N-902-00-17-009, without revision  
 Draw hook 1000 kN (L = 575 mm) - drawing ..... N-902-00-17-010, without revision  
 Draw gear 1000 kN (DUREL DZ 15) - assembly drawing ..... N-902-00-17-00-0, without revision  
 Draw gear 1000 kN (DUREL DZ 20) - assembly drawing ..... N-902-00-17-00-1, without revision  
 Draw gear – low 1000 kN (DUREL DZ15NF) – assembly drw..... N-904-00-17-00-0, without revision

**Assessed components:**

- Drawbar 1000 kN - drawing ..... N-902-00-17-002, without revision  
 Drawbar 1000 kN - drawing ..... N-904-00-17-003, without revision  
 Joint pin 1000 kN - drawing ..... N-902-00-17-007, without revision  
 Support plate 30 mm - drawing ..... N-902-00-17-001, without revision  
 Support plate 1000 kN – drawing ..... N-904-00-17-001, without revision  
 Nut 1000 kN - drawing ..... N-902-00-17-005, without revision  
 Thrust part - drawing ..... N-902-00-17-003, revision A  
 Thrust part - drawing ..... N-904-00-17-002, without revision

**Scope of assessment:**

Assessment of the part of the rolling stock subsystem „End coupling“ including Additional optional conditional of Appendix C.

**List of applicable technical regulations, documents and standards:**

**Applicable Directives and TSI:**

Designation	Title	Date of issue
Directive 2008/57/EC of the European Parliament and of the Council as amendes by Commission Directives 2009/131/EC 2011/18/EU 2013/9/EU 2014/38/EU 2014/106/EU	on the interoperability of the rail system within the Community	17.06.2008  16.10.2009 01.03.2011 11.03.2013 10.03.2014 05.12.2014
Commission Regulation (EU) No 321/2013 as amended by Commission Regulation (EU) No 1236/2013 No 2015/924	TSI for subsystem 'Rolling Stock – Freight Wagons' of the rail system in the European Union and repealing Decision 2006/861/EC	13.03.2013  02.12.2013 08.06.2015



Designation	Title	Date of issue
Commission Decision 2010/713/EU	on modules for the procedures for assessment of conformity, suitability for use and EC verification to be used in the technical specifications for interoperability adopted under Directive 2008/57/EC of the European Parliament and of the Council	09.11.2010

**Mandatory standards or other documents mentioned in TSI:**

Designation	Title	Date of issue
EN 15566:2009+A1:2010	Railway applications - Railway rolling stock - Draw gear and screw coupling	11.2010

**Recommended standards or other documents unmentioned in TSI:**

None.

**Details of associated Interoperability Constituents:**

Not relevant.

**List of approved documents:**

Designation/Publisher (if different from applicant)	Title	Date of issue
N-902-00-17-00-0 / TVP	TAHADLOVE USTROJENSTVO 1000 kN <i>Draw gear 1000 kN (DUREL DZ 15)</i>	20.02.2014
N-902-00-17-00-1 / TVP	TAHADLOVE USTROJENSTVO 1000 kN <i>Draw gear 1000 kN (DUREL DZ 20)</i>	20.02.2014
N-902-00-17-001 / TVP	OPORNA DOSKA 30 mm <i>Support plate 30 mm</i>	13.02.2014
N-902-00-17-002 / TVP	TAHADLO 1000 kN <i>Drawbar 1000 kN</i>	13.02.2014
N-902-00-17-003 / TVP	TLACNY KUS <i>Thrust part, revision A</i>	13.02.2014
N-902-00-17-004 / TVP	DISTANCNY KRUZOK <i>Spacer ring</i>	13.02.2014
N-902-00-17-005 / TVP	MATICA 1000 kN <i>Nut 1000 kN</i>	13.02.2014
N-902-00-17-006 / TVP	POISTNA PODLOZKA <i>Lock washer</i>	13.02.2014
N-902-00-17-007 / TVP	CAP 1000 kN <i>Pin 1000 kN</i>	13.02.2014
N-902-00-17-008 / TVP	POISTNA PODLOZKA <i>Lock washer</i>	13.02.2014
N-902-00-17-009 / TVP	TAHADLOVY HAK <i>Draw hook</i> 1000 kN (L = 530 mm)	13.02.2014
N-902-00-17-010 / TVP	TAHADLOVY HAK <i>Draw hook</i> 1000 kN (L = 575 mm)	13.02.2014
PUKO TU 1000 kN DUREL DZ 15	Pokyny pre údržbu, kontrolu počas prevádzky a pre opravu tiahlového háku s okom <i>Instructions for maintenance, inspection during operation and for repair of the draw hook with eye</i> - Document in Slovak	28.05.2015
PUKO TU 1000 kN DUREL DZ 20	Pokyny pre údržbu, kontrolu počas prevádzky a pre opravu tiahlového háku s okom <i>Instructions for maintenance, inspection during operation and for repair of the draw hook with eye</i> - Document in Slovak	28.05.2015
POZ 029/2015 / VUZ	Draw and buffer gear test, Non-destructive testing – Magnetic particle test (MT) – Draw gear 1000 kN	22.04.2015
15/1007 / ZLH	Inšpekčný certifikát 3.1 Oporná doska 30 <i>Inspection certificate 3.1 Support plate 30</i> - Document in Slovak	11.06.2015

Designation/Publisher (if different from applicant)	Title	Date of issue
R15-0236	Výsledky kontroly (rozměry) Oporná doska 30 <i>Results of control (dimensions) Support plate 30</i> - Document in Slovak	12.06.2015
0066/MT/2015 / ZLH	Magnetic testing Oporná doska 30 <i>Support plate 30</i>	04.06.2015
256/2015 / GAMMEX	Protokol o skúške prežiarením <i>Test Protocol by radiography</i> Oporná doska 30 <i>Support plate 30</i> - Document in Slovak	04.06.2015
H15-0491	Inspection certificate 3.1 Čap 1000 kN <i>Pin 1000 kN</i>	12.06.2015
R15-0259	Výsledky kontroly (rozměry) Čap 1000 kN <i>Results of control (dimensions) Pin 1000 kN</i> - Document in Slovak	12.06.2015
H15-0477	Inspection certificate 3.1 Ťahadlo 1000 kN <i>Drawbar 1000 kN</i>	12.06.2015
R15-0254	Výsledky kontroly (rozměry) Ťahadlo 1000 kN <i>Results of control (dimensions) Drawbar 1000 kN</i> - Document in Slovak	12.06.2015
17-2015	Protokol o skúške MT Ťahadlo 1000 kN <i>Test Protocol MT Drawbar 1000 kN</i> - Document in Slovak	25.05.2015
1/2015	Výsledky metalografického skúšania <i>Metallographic test results</i> Ťahadlo 1000 kN <i>Drawbar 1000 kN</i> - Document in Slovak	12.06.2015
H15-0478	Inspection certificate 3.1 Matica 1000 kN <i>Nut 1000 kN</i>	12.06.2015
R15-0272	Výsledky kontroly (rozměry) Matica 1000 kN <i>Results of control (dimensions) Nut 1000 kN</i> - Document in Slovak	12.06.2015
H10-0479	Inspection certificate 3.1 Tlačný kus <i>Thrust part</i>	12.06.2015
R15-0257	Výsledky kontroly (rozměry) Tlačný kus <i>Results of control (dimensions) Thrust part</i> - Document in Slovak	12.06.2015
POZ 049/2015 / VUZ	Draw and buffer gear test, Draw hook 1000 kN	10.06.2015
H15-0476	Inspection certificate 3.1 Hák ťahlový <i>Draw hook (1000 kN)</i>	12.06.2015
R15-0253	Výsledky kontroly (rozměry) Hák ťahlový <i>Results of control (dimensions) Draw hook (1000 kN)</i> - Document in Slovak	12.06.2015
2-2015	Protokol o skúške MT Hák ťahlový 1000 kN <i>Test Protocol MT Draw hook 1000 kN</i> - Document in Slovak	29.05.2015
2/2015	Výsledky metalografického skúšania, <i>Metallographic test results</i> Ťahadlový hák 1000 kN <i>Draw hook 1000 kN</i> - Document in Slovak	12.06.2015
Q/E 1726-2 / TÜV SÜD Slovakia	Certificate EN ISO 9001:2015 and EN ISO 14001:2015	23.05.2018





Designation/Publisher (if different from applicant)	Title	Date of issue
SISM-R1-1	Príručka ISM ( <i>Quality Manual</i> ) edition 1 - Document in Slovak	25.04.2017
3175 / 2013	Licenčná zmluva (k technickej dokumentácii) <i>License agreement (for technical documentation)</i> - Document in Slovak	23.01.2014
4231-14	Odozdvávací – preberací protokol konštrukčnej dokumentácie <i>Handing - acceptance protocol of design documentation</i> - Document in Slovak	12.09.2014
N-904-00-17-00-0 / TVP	TAHADLOVE USTROJ.-NIZKE 1000kN <i>Draw gear 1000 kN (DUREL DZ 15 NF)</i>	05.2016
N-904-00-17-001 / TVP	OPORNA DOSKA 1000kN <i>Support plate 1000 kN</i>	05.2016
N-904-00-17-002 / TVP	TLACNY KUS <i>Thrust part</i>	05.2016
N-904-00-17-003 / TVP	TAHADLO 1000 kN <i>Drawbar 1000 kN</i>	05.2016
PUKO TU-NÍZKE 1000 kN DUREL DZ 15NF	Pracovný postup pre údržbu, kontrolu a opravu ťahadlového ústrojenstva počas jeho prevádzky <i>Operating procedure for maintenance, inspection and for repair of the draw gear during operation</i> - Document in Slovak	19.10.2016
H16-0827	Inspection certificate 3.1 Ťahadlo 1000 kN obrobok 0166b <i>Drawbar 1000 kN workpiece 0166b</i>	12.09.2016
R16-0113	Výsledky kontroly ( <i>rozměry</i> ) Ťahadlo 1000 kN obrobok 0166b <i>Results of control (dimensions) Drawbar 1000 kN workpiece 0166b</i> - Document in Slovak	09.09.2016
H16-0826	Inspection certificate 3.1 Tlačný kus <i>Thrust part</i>	12.09.2016
R16-0111	Výsledky kontroly ( <i>rozměry</i> ) Tlačný kus <i>Results of control (dimensions) Thrust part</i> - Document in Slovak	09.09.2016
N-904-00-17-001/ODL. 17-001 H1 A2 / ZLH Plus	Rozmerový protokol ( <i>rozměry</i> ) Oporná doska 1000 kN <i>Results of control (dimensions) Support plate 1000 kN</i> - Document in Slovak	16.08.2016
0100/MT/2016 / ZLH Plus	Protokol o skúške MT Oporná doska 30 <i>Test Protocol MT Support plate 30</i> - Document in Slovak	26.08.2016
307/2016 / GAMMEX	Protokol o skúške prežiarením Odliatok č.m. 17001 H1-4-INDEX A2H4 <i>Test Protocol by radiography Cast model No. 17001 H1-4-INDEX A2H4</i> - Document in Slovak	25.08.2016
107/2016/0166b	Výsledky metalografického skúšania, Ťahadlo 1000 kN <i>Metallographic test results, Drawbar 1000 kN</i> - Document in Slovak	12.09.2016
2016/03/005325-PER / Třinecké železářny, a.s.	Inspection certificate 3.1 Heat No. 37715 for draw bar	11.03.2016

Designation/Publisher (if different from applicant)	Title	Date of issue
POZ 080/2016 / VUZ	Zkoušení táhlových a narážecích ústrojí Nedestruktivní zkoušení-metoda magnetická prášková polévaci (MT) Krátké táhlové ústrojí 1000 kN <i>Draw and buffer gear test, Non-destructive testing –          Magnetic particle test (MT) – Short draw gear 1000 kN          - document in Czech</i>	07.10.2016

**Explanation to the publishers:**

TVP – TATRAVAGÓNKA a.s., Štefánikova 887/53, 058 01 Poprad, Slovak Republic  
 VUZ – Výzkumný Ústav Železniční, a.s., Praha 4, Braník, Novodvorská 1698, PSČ 142 01, Czech Republic  
 ZLH – ZLH Plus, a.s., Zlívevarenská 533, 976 45 Hronec, Slovak Republic  
 GAMMEX – GAMMEX NDT COSULTING, ŠLN 21, 977 01 Brezno, Slovak Republic  
 Třinecké železářny, a.s. – Moravia Steel, Průmyslová 1000, Staré Město, 739 61 Třinec, Czech Republic,  
 VZ - Sochorová válcovna, 272 01 Kladno - Dřív, Czech Republic

**Relevant issued certificates:**

Not relevant.

**The data detailing servicing, routine maintenance and adjustment:**

Designation	Title	Date of issue
PUKO TU 1000 kN DUREL DZ 15	Pokyny pre údržbu, kontrolu počas prevádzky a pre opravu ťahového háku s okom <i>Instructions for maintenance, inspection during operation and for repair of the draw hook with eye          - Document in Slovak</i>	28.05.2015
PUKO TU 1000 kN DUREL DZ 20	Pokyny pre údržbu, kontrolu počas prevádzky a pre opravu ťahového háku s okom <i>Instructions for maintenance, inspection during operation and for repair of the draw hook with eye          - Document in Slovak</i>	28.05.2015
PUKO TU-NÍZKE 1000 kN DUREL DZ 15NF	Pracovný postup pre údržbu, kontrolu a opravu ťahadlového ústrojenstva počas jeho prevádzky <i>Operating procedure for maintenance, inspection and for repair of the draw gear during operation          - Document in Slovak</i>	19.10.2016

**Other certificates about conformity:**

Applicant didn't mention any information about assessment according to the other EU Directives.

\* \* \*

Date of Issue:  
17.06.2019

Signature: 

Name: Ing. Ondřej Fanta, Ph.D. Title: Technical Director

On behalf of Výzkumný Ústav Železniční, a.s.  
 seated at Praha 4, Braník, Novodvorská 1698, PSČ 142 01, Czech Republic

EC-Identification No. of Notified Body: 1714