



# Intermediate Statement of Verification EC Type Examination

**Certificate Number:** 1714 / 8.1 / SB / 2015 / RST / EN / 1698

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 1500 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 / 1698

**Manufacturing Location:** See Annex of Certificate 1714 / 8.1 / SB / 2015 / RST / EN / 1698

**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 / 1698-P issued 17.06.2019

**Assesment Report:** ZZA15085RST-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 / 8.1 / SB / 2015 / RST / EN / 1698 of 24.05.2018.



**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 1500 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 1500 kN (L = 530 mm) – drawing.....	N-902-00-17-011, without revision
Draw hook 1500 kN (L = 575 mm) – drawing.....	N-902-00-17-012, without revision
Draw gear 1500 kN - assembly drawing .....	N-902-00-17-00-2, without revision
Draw gear – low 1500 kN DGL1,5/20 – assembly drawing.....	N-904-00-17-00-1, revision A

**Assessed components:**

Drawbar 1500 kN - drawing .....	N-902-00-17-013, without revision
Drawbar 1500 kN - drawing .....	N-904-00-17-006, without revision
Joint pin 1500 kN - drawing .....	N-902-00-17-015, without revision
Support plate 30 mm - drawing .....	N-902-00-17-001, without revision
Support plate 1500 kN - drawing .....	N-904-00-17-005, revision A
Nut 1500 kN - drawing .....	N-902-00-17-014, 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 amends 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 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-902-00-17-00-2 / TVP	TAHADLOVE USTROJENSTVO 1500 kN <i>Draw gear 1500 kN</i>	20.02.2014
N-902-00-17-001 / TVP	OPORNA DOSKA 30 mm <i>Support plate 30 mm</i>	13.02.2014
N-902-00-17-013 / TVP	TAHADLO 1500 kN <i>Drawbar 1500 kN</i>	13.02.2014
N-902-00-17-003 / TVP	TLACNY KUS <i>Thrust part, revision A of 24.11.2014</i>	13.02.2014
N-902-00-17-004 / TVP	DISTANCNY KRIZOK <i>Spacer ring</i>	13.02.2014
N-902-00-17-014 / TVP	MATICA 1500 kN <i>Nut 1500 kN</i>	13.02.2014
N-902-00-17-006 / TVP	POISTNA PODLOZKA <i>Lock washer</i>	13.02.2014
N-902-00-17-015 / TVP	CAP 1500 kN <i>Pin 1500 kN</i>	13.02.2014
N-902-00-17-008 / TVP	POISTNA PODLOZKA <i>Lock washer</i>	13.02.2014
PUKO TU 1500 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</i> - Document in Slovak	28.05.2015
POZ 032/2015 / VUZ	Draw and buffer gear test, Non-destructive testing – Magnetic particle test (MT) – Draw gear 1500 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
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
H10-3180	Inspection certificate 3.1 Čap 1500 kN <i>Pin 1500 kN</i>	02.12.2014

Designation/Publisher (if different from applicant)	Title	Date of issue
R15-0263	Výsledky kontroly (rozměry), Čap 1500 kN <i>Results of control (dimensions), Pin 1500 kN</i> - Document in Slovak	09.04.2015
H10-3162	Inspection certificate 3.1 Ťahadlo 1500 kN <i>Drawbar 1500 kN</i>	21.11.2014
R15-0265	Výsledky kontroly (rozměry) Ťahadlo 1500 kN <i>Results of control (dimensions); Drawbar 1500 kN</i> - Document in Slovak	09.04.2015
18-2015	Protokol o skúške MT, Ťahadlo 1500 kN <i>Test Protocol MT, Drawbar 1500 kN</i> - Document in Slovak	12.01.2015
3/2015	Vysledky metalografického skúšania; Ťahadlo 1500 kN <i>Metallographic test results; Drawbar 1500 kN</i> - Document in Slovak	12.06.2015
H10-3174	Inspection certificate 3.1; Matica 1500 kN <i>Nut 1500 kN</i>	01.12.2014
R15-0271	Výsledky kontroly (rozměry), Matica 1500 kN <i>Results of control (dimensions), Nut 1500 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
N-904-00-17-00-1 / TVP	TAHADLOVE USTROJ.NIZKE DGL1,5/20 <i>Draw gear low 1500 kN DGL1,5/20</i> revision A from 06.2017	02.2017
N-904-00-17-005 / TVP	OPORNÁ DOSKA 1500kN; <i>Support plate 1500 kN</i> revision A from 05.2017	05.2016
N-904-00-17-002 / TVP	TLACNY KUS <i>Thrust part</i>	05.2016
N-904-00-17-006 / TVP	TAHADLO 1500 kN <i>Drawbar 1500 kN</i>	05.2016
N-902-00-17-011 / TVP	TAHADLOVY HAK <i>Draw hook</i> 1500 kN (L = 530 mm)	13.02.2014
N-902-00-17-012 / TVP	TAHADLOVY HAK <i>Draw hook</i> 1500 kN (L = 575 mm)	13.02.2014
PUKO TU-NÍZKE 1500 kN DUREL DZ 20SK	Pracovný postup pre údržbu, kontrolu a opravu ťahadlového ústrojenstva počas jeho prevádzky <i>Work procedure for maintenance, inspection and repair</i> <i>of the draw gear during its operation</i> - Document in Slovak	27.03.2018
PUKO TH 1500 kN	Pracovný postup pre údržbu, kontrolu a opravu ťahadlového háku počas jeho prevádzky <i>Work procedure for maintenance, inspection and repair</i> <i>of the draw hook during its operation</i> - Document in Slovak	27.03.2018
POZ 016/2018 / VUZ	Test on draw gears and buffer gears - Non-destructive testing (NDT) - magnetic method Powder Coating (MT) Short draw gear 1500 kN	16.03.2018



Designation/Publisher (if different from applicant)	Title	Date of issue
POZ 015/2018 / VUZ	Zkoušení táhlových a narážecích ústrojí, Nedestruktivní testování-metoda magnetická prášková polévací (MT) – Táhlový hák 1500 kN <i>Test on draw gears and buffer gears - Non-destructive testing (NDT) - magnetic method Powder Coating (MT) Draw hook 1500 kN - Document in Czech</i>	15.03.2018
H17-0755	Inspection certificate 3.1 Tlačný kus obrobok 0259a <i>Thrust part workpiece 0259a heat No. 53141</i>	07.11.2017
R18-0009	Výsledky kontroly (rozměry), Tlačný kus <i>Results of control (dimensions), Thrust part heat No. 53141 - Document in Slovak</i>	07.11.2017
H18-0507	Inspection certificate 3.1 Ťahadlo 1500 kN obrobok 0166.1b <i>Drawbar 1500 kN workpiece 0166.1b heat No. 48954</i>	07.11.2017
R18-0010	Výsledky kontroly (rozměry), Ťahadlo 1500 kN obrobok <i>Results of control (dimensions), Drawbar 1500 kN workpiece; heat No. 48954 - Document in Slovak</i>	07.11.2017
H15-0476	Inspection certificate 3.1 Hák ťahlový <i>Draw hook (1000 kN)</i>	12.06.2015
R15-0253	Výsledky kontroly (rozměry), Hák ťahlový (1000 kN) <i>Results of control (dimensions), Draw hook (1000 kN) - Document in Slovak</i>	12.06.2015
2-2015	Protokol o skúške MT, Hák ťahlový 1000 kN <i>Test report, Draw hook 1000 kN - Document in Slovak</i>	29.05.2015
2/2015	Výsledky metalografického skúšania, Ťahadlový hák 1000 kN <i>Results of metallographic testing, Draw hook 1000 kN - Document in Slovak</i>	12.06.2015
Q/E 1726-2 / TÜV SÜD Slovakia	Certificate EN ISO 9001:2015 and EN ISO 14001:2015	23.05.2018
SISM-R1-1	Príručka ISM (Quality Manual) edition 1 <i>- Document in Slovak</i>	25.04.2017
3175 / 2013	Licenčná zmluva (k technickej dokumentácii) <i>License agreement (for technical documentation) - Document in Slovak</i>	23.01.2014
4231-14	Odozdávaco – preberací protokol konštrukčnej dokumentácie <i>Handing - acceptance protocol of design documentation - Document in Slovak</i>	12.09.2014
3120 / 17	Licenčná zmluva (k technickej dokumentácii) <i>License agreement (for technical documentation) - Document in Slovak</i>	09.06.2017

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., Zlievarenská 533, 976 45 Hronec, Slovak Republic

GAMMEX - GAMMEX NDT COSULTING, ŠLN 21, 977 01 Brezno, Slovak Republic



**Relevant issued certificates:**

Not relevant.

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

Designation	Title	Date of issue
PUKO TU 1500 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</i> - Document in Slovak	28.05.2015
PUKO TU-NÍZKE 1500 kN DUREL DZ 20SK	Pracovný postup pre údržbu, kontrolu a opravu ťahového ústrojenstva počas jeho prevádzky <i>Work procedure for maintenance, inspection and repair of the draw gear during its operation</i> - Document in Slovak	27.03.2018
PUKO TH 1500 kN	Pracovný postup pre údržbu, kontrolu a opravu ťahového háku počas jeho prevádzky <i>Work procedure for maintenance, inspection and repair of the draw hook during its operation</i> - Document in Slovak	27.03.2018

**Other certificates about conformity:**

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

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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