ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Industrie Service

EU TYPE-EXAMINATION CERTIFICATE

According to Annex IV, Part A of 2014/33/EU Directive

Certificate No.:	EU-BD 906
Certification Body of the Notified Body:	TÜV SÜD Industrie Service GmbH Westendstr. 199 80686 Munich - Germany Identification No. 0036
Certificate Holder:	WARNER Electric Europe 7, rue de Champfleur BP 20095 49124 Saint Barthélemy d'Anjou - France
Manufacturer of the Test Sample: (Manufacturer of Serial Production – see Enclosure)	WARNER Electric Europe 7, rue de Champfleur BP 20095 49124 Saint Barthélemy d'Anjou - France
Product:	Braking device acting on the shaft of the traction sheave, as part of the protection device against overspeed for the car moving in upwards direction and braking element against unintended car movement
Type:	ERS FENIX 09 Size: 06-____, 10-____
Directive:	2014/33/EU
Reference Standards:	EN 81-20:2014 EN 81-50:2014 EN 81-1:1998+A3:2009
Test Report:	EU-BD 906 of 2016-01-22
Outcome:	The safety component conforms to the essential health and safety requirements of the mentioned Directive as long as the requirements of the annex of this certificate are kept.
Date of Issue:	2016-01-22
Date of Validity:	from 2016-04-20

TÜV SÜD Industrie Service GmbH 00 36 Notified Body

Werner Rau
Certification Body "lifts and cranes"

Annex to the EU Type-Examination Certificate
No. EU-BD 906 of 2016-01-22

Industrie Service

1 Scope of application

1.1 Use as braking device – part of the the protection device against overspeed for the car moving in upwards direction – permissible brake torques and tripping rotary speeds

1.1.1 Permissible brake torques and maximum tripping rotary speeds of the traction sheave when the brake device acts on the shaft of the traction sheave while the car is moving upward

Size	Permissible brake torque [Nm]	Max. tripping rotary speed of the traction sheave [rpm]
06-_ _ _ _	1200 - 1900	300
06-_ _ _ _	1200 - 1600	400
10-_ _ _ _	1546 - 2904	300
10-_ _ _ _	1319 - 2684	500

1.1.2 Maximum tripping speed of the overspeed governor and maximum rated speed of the lift

The maximum tripping speed of the overspeed governor and the maximum rated speed of the lift must be calculated on the basis of the traction sheave's maximum tripping rotary speed as outlined above taking into account traction sheave diameter and car suspension.

$$v = \frac{D_{TS} \times \pi \times n}{60 \times i}$$

v = Tripping (rated) speed (m/s)
D_{TS} = Diameter of the traction sheave from rope's centre to rope's centre (m)
π = 3,14
n = Rotary speed (rpm)
i = Ratio of the car suspension

1.2 Use as braking element – part of the protection device against unintended car movement (acting in up and down direction) – permissible brake torques, tripping rotary speeds and characteristics

1.2.1 Nominal brake torques and response times with relation to a brand-new brake element

Size	Nominal brake torque * [Nm]	Max. tripping rotary speed [rpm]	Maximum response times** [ms] with / without overexcitation		
			t_{10}	t_{50}	t_{90}
06-_ _ _ _	2 x 950 = 1900	300	100	180	260
06-_ _ _ _	2 x 600 = 1200	400	125	178	230
06-_ _ _ _	2 x 800 = 1600	400	100	155	210
10-_ _ _ _	2 x 1000 = 2000	300	100	130	160
10-_ _ _ _	2 x 1200 = 2400	300	100	143	185
10-_ _ _ _	2 x 1400 = 2800	300	100	160	220
10-_ _ _ _	2 x 1000 = 2000	500	100	130	160
10-_ _ _ _	2 x 1300 = 2600	500	100	155	210

Interim values can be interpolated

Explanations:

* **Nominal brake torque:** Brake torque assured for installation operation by the safety component manufacturer.

** **Response times:** t_X time difference between the drop of the braking power until establishing X% of the nominal brake torque, t_{50} optionally calculated $t_{50} = (t_{10} + t_{90})/2$ or value taken from the examination recording

1.2.2 Assigned execution features

Size	Type of powering / deactivation	Brake control	Nominal air gap [mm]	Damping elements / adhesive foil integrated	Overexcitation
06-_ _ _ _	Continuous current / continuous current end	serial or parallel	0.65	yes / yes	at double non-release voltage
10-_ _ _ _	Continuous current / continuous current end	serial or parallel	0.65	yes / yes	at double non-release voltage

2 Conditions

2.1 Above mentioned safety component represents only a part at the protection device against overspeed for the car moving in upwards direction and unintended car movement. Only in combination with a detecting and triggering component in accordance with the standard (two separate components also possible), which must be subjected to an own type-examination, can the system created fulfil the requirements for a protection device.

2.2 The installer of a lift must create an examination instruction to fulfil the overall concept, add it to the lift documentation and provide any necessary tools or measuring devices, which allow a safe examination (e. g. with closed shaft doors).

2.3 The manufacturer of the drive unit must provide calculation evidence that the connection traction sheave – shaft – brake disc and the shaft itself is sufficiently safe, if the brake disc is not a direct component of the traction sheave (e. g. casted on). The shaft itself has to be statically supported in two points.

An evidence must be enclosed with the technical documentation of the lift.

2.4 The setting of the brake torque has to be secured against unauthorized adjustment (e. g. sealing lacquer).

2.5 The respective identification drawing according to the following table shall be included to the EU type-examination certificate for the identification and information of the general construction and operation and distinctness of the approved type:

Size	No. of the identification drawing	Date of stamp
06-_ _ _ _	1 12 108011	09.03.2015
10-_ _ _ _	1 12 107689	24.09.2012

2.6 The EU type-examination certificate may only be used in combination with the corresponding annex and enclosure (List of authorized manufacturer of the serial production). The enclosure will be updated immediately after any change by the certification holder.

3 Remarks

3.1 The brake moment effectively adjusted of one brake circuit will be marked at the blank after the type designation ERS FENIX 09 XX/_ _ _ _.

3.2 In the scope of this type-examination it was found out, that the brake device also functions as a brake for normal operation, is designed as a redundant system and therefore meets the requirements to be used also as a part of the protection device against overspeed for the car moving in upwards direction and as braking element as part of the protection device against unintended car movement.

3.3 Checking whether the requirements as per section 5.9.2.2 of EN 81-20:2014 (D) have been complied with is not part of this type examination.

3.4 Other requirements of the standard, such as reduction of brake moment respectively brake force due to wear or operational caused changes of traction are not part of this type examination.

3.5 This EU type-examination certificate was issued according to the following standards:

- EN 81-1:1998 + A3:2009 (D), Annex F.7 and F.8
- EN 81-20:2014 (D), part 5.6.6.11, 5.6.7.13
- EN 81-50:2014 (D), part 5.7 and 5.8

3.6 A revision of this EU type-examination certificate is inevitable in case of changes or additions of the above mentioned standards or of changes of state of the art.

Enclosure to the EU Type-Examination Certificate
No. EU-BD 906 of 2016-01-22

Industrie Service

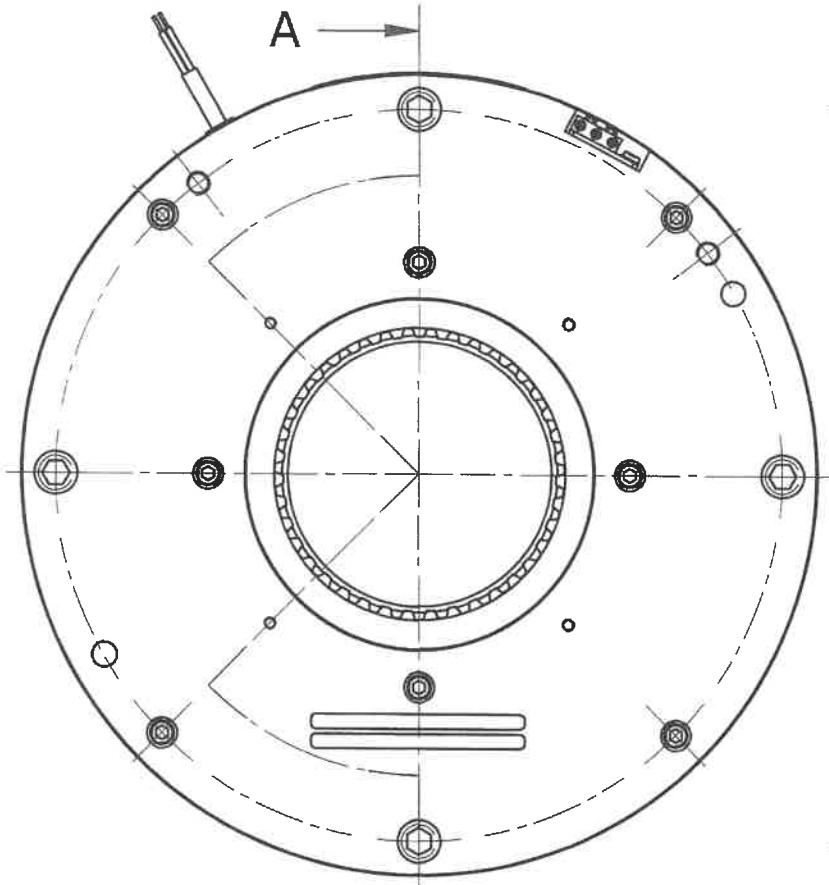
Authorised Manufacturer of Serial Production – Production Sites (valid from: 2016-01-22):

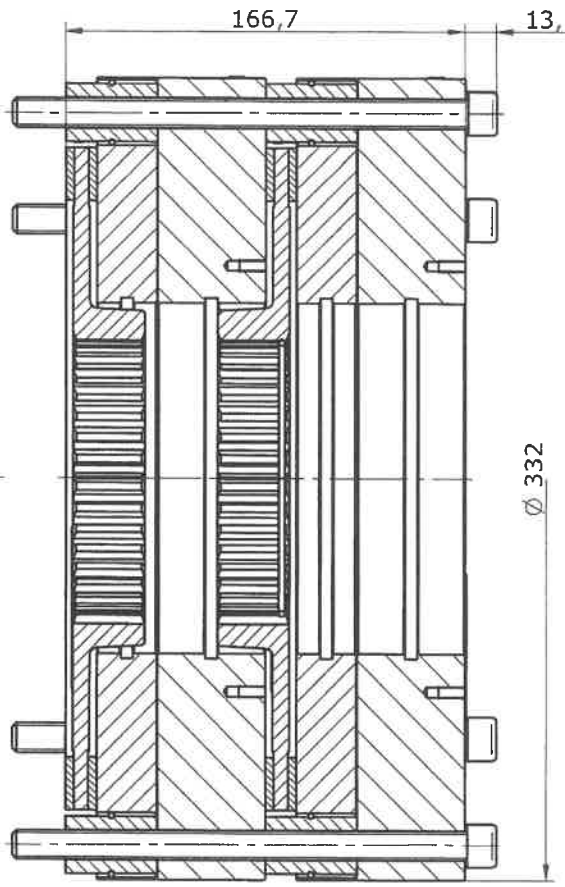
Company	WARNER Electric Europe
Address	7, rue de Champfleur BP 20095 49124 Saint Barthélemy d'Anjou - France

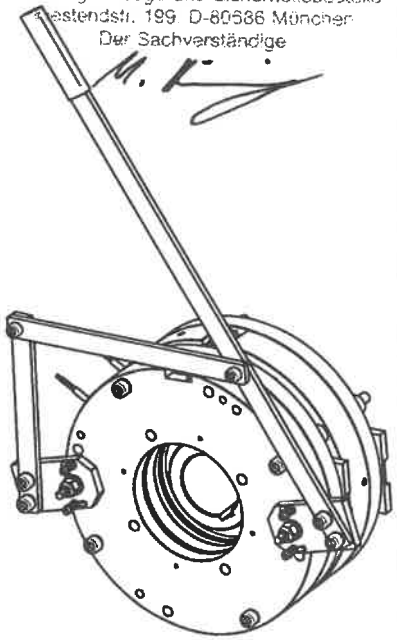
Company	Altra Industrial Motion Shenzhen Co. Ltd.
Address	Dabo Industry Zone 18 Huanzhen Road Bogang County, Shajing Town Baoan District, Shenzhen City 518104 Guangdong province - China (PRC)

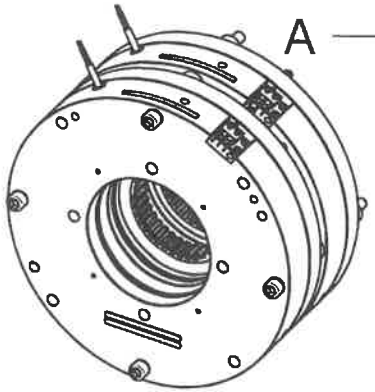
- END OF DOCUMENT -

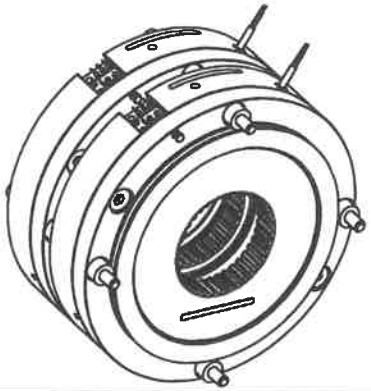
Based on: e-mail from Warner Electric Europe of 2016-01-15











A-A

Les cotes sans indication de tolérances sont des cotes nominales.
Untoleranced dimensions are nominal dimensions.

NOTES

2 4. Sep. 2012
GEPRÜFT
TÜV SÜD Industrie Service GmbH
Zentralbereich Fördertechnik-Sonderbauten
Abteilung Aufzüge und Sicherheitsbauteile
Westendstr. 199 D-80686 München
Der Sachverständige

Client/customer: TUV									
Ms (Nm) : -	Customer ref : -								
Md (Nm) : -									
n Md (min-1) :	Dimensions in mm								
n max (min-1) : 500		FM	LT	REVISION	DATE	By	Ch.		
U (Vdc) : -	Manual/Notice : SMXXX								
P20°C (W) : -	Mass : 82,6 kg	Scale: 1:1		Drawn : JC Jardin	Date: 20-07-12				
Insulation class (°C): F				Checked:	Date: 20-07-12				

Warner Electric Europe

Design.: Frein Electromagnétique
Electromagnetic brake

Type: ERS FENIX 09 10-____

N° 1 12 107689

CAD SE

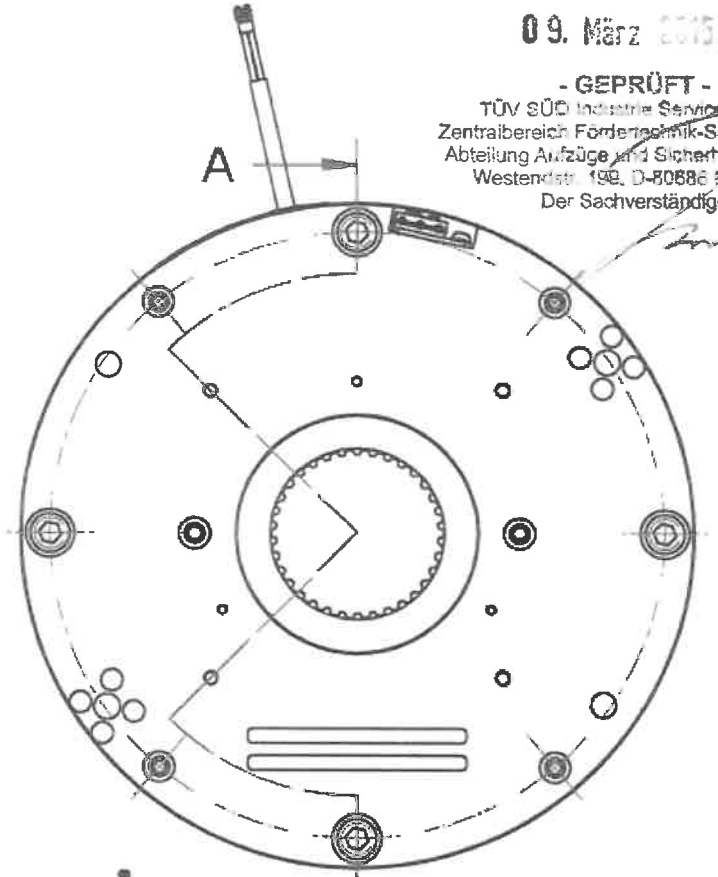
A3

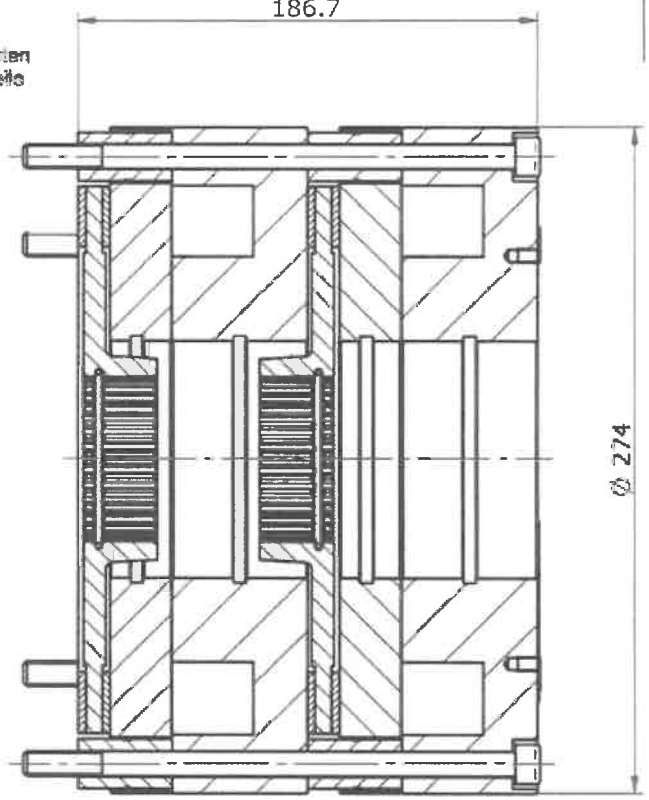
09. März 2015

- GEPRÜFT -
TÜV SÜD Industrie Service GmbH
Zentralbereich Fördertechnik-Sonderbauten
Abteilung Aufzüge und Sicherheitsbauteile
Westendstr. 199, D-80686 München
Der Sachverständige

Les cotes sans indication de tolérances sont des cotes nominales.
Untoleranced dimensions are nominal dimensions.

NOTES





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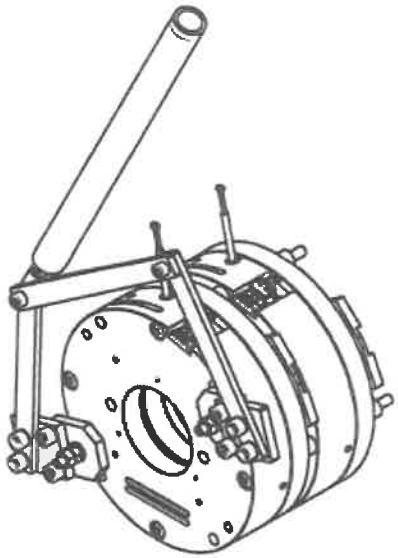
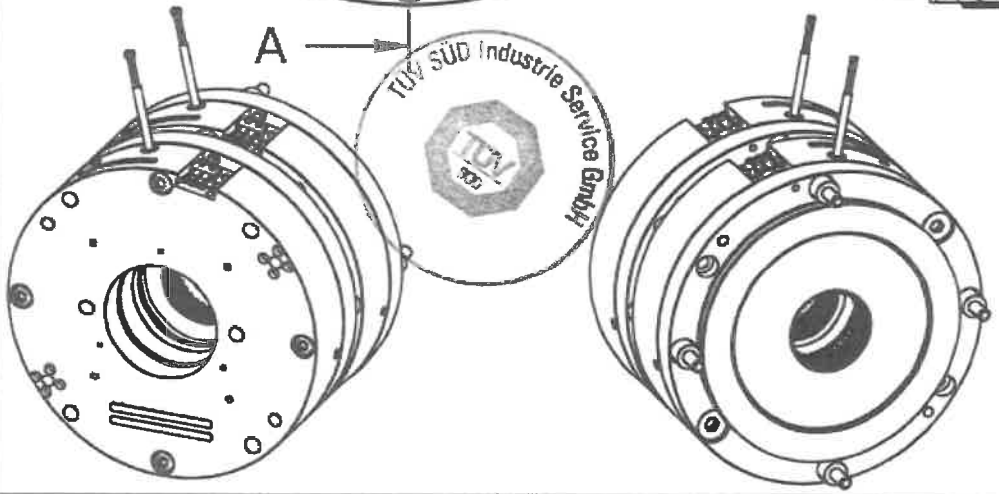




Last modifications in Blue ***Dernières modifications en Bléu***							
Client / Customer:TUV							
Ms (Nm) :	Customer ref:						
Md (Nm) :							
n Md (min-1) :	Dimensions in mm						
n max (min-1) :							
U (Vdc) :	Manual / Notice: SM						
P 20°C :	Mass: 69 kg	Scale: 1:1					
Insulation class (°C) :							

FM	LT	REVISION	DATE	By	Ch.

Drawn: M. Bouvier Date:05/12/2014
Checked: Date:05/12/2014

Design.: **Frein Electromagnétique**
Electromagnetic brake

Type: **ERS FENIX 09 06-___ HR**

Dwg N°: **112108011**

SAP N°:

Altra
Electric Clutch Brake Group
Warner Electric • Marmi Industrial
Inertia Dynamics • Warner Linear

CAD SE
A3ens

ThyssenKrupp Aufzugswerke

Certificate concerning the examination of traction sheave shaft calculation including shaft to collar connections

Neuhausen, den 14. Januar 2016

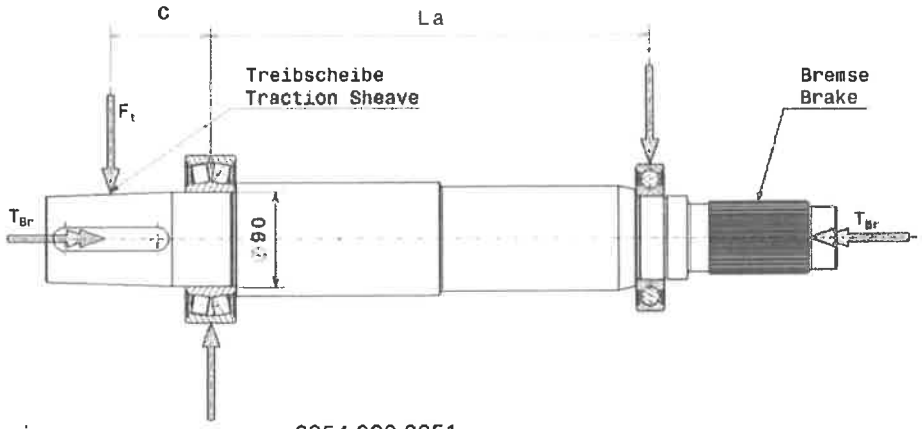
Lift machine type: **PMC170S/M/L/XL**

Brake type: **ERS Fenix 09 10-1200 – 2x1200Nm** according
- EC-Type – Examination ASBV 906/x
- EC-Type – Examination EU-BD 906/x

Manufacturer: ThyssenKrupp Aufzugswerke GmbH
Bernhäuser Str.45, 73765 Neuhausen a.d.F.

Object examined: Calculation of traction sheave shaft including shaft to collar connections

Examination basis: DIN743, DIN743, machine elements Niemann/Winter/Höhn (2005)



Design drawing: 6254 000 0051
Material: C60R+N (1.1223)

Load data:

Lift machine type	Distance Traction sheave c	Bearing Distance La	Max. Shaft load F_t	Nominal brake torque T_{Br}	Max. brake torque 2,0 x T_{Br}
	(mm)	(mm)	(kN)	(Nm)	(Nm)
PMC170S	102	266,5	30	2x1200=2400	4800
PMC170M		326,5	42		
PMC170L		356,5	40		
PMC170XL		416,5	42		

Examination result:
For the examination calculations were carried out based on the examination basis.
The result was that the traction sheave shaft and the shaft to collar connections were designed according the maximum load data. The remarks in the maintenance instructions are to be observed.
The conditions mentioned in annex the EC Type-Examination Certificate no. ASBV 906/x respectively EC Type-Examination Certificate EU BD 906/x are herewith fulfilled.

(Executive board)

(Engineering CCU-TD)

Industrie Service

TÜV SÜD Industrie Service GmbH · 80684 München · Deutschland

Mehr Sicherheit.
Mehr Wert.

WARNER Electric Europe
7, rue de Champfleur
49124 St. Barthélemy d'Anjou
Frankreich

Ihre Zeichen/Nachricht vom	Unsere Zeichen/Name	Tel.-Durchwahl/E-Mail	Fax-Durchwahl	Datum	Seite
	IS-FT1-MUC/cr Christian Rühmeyer	089 5791-3450 christian.ruehrmeyer@tuev-sued.de	089 5791-3337	21. März 2016 Warner_Bestätigung_EN81-20_50_160321.docx	1 von 3

Erfüllung der Anforderungen an Baumusterprüfungen von Schutzeinrichtungen für den aufwärtsfahrenden Fahrkorb gegen Übergeschwindigkeit (SAFÜ) sowie gegen unbeabsichtigte Bewegung des Fahrkorbs (SUBF) nach der harmonisierten Norm EN 81-50:2014 (D) durch (EG-)Baumusterprüfbescheinigungen nach Richtlinie 95/16/EG

Sehr geehrte Damen und Herren,

für die nachfolgend aufgeführten Produkte wurden (EG-)Baumusterprüfbescheinigungen nach Richtlinie 95/16/EG ausgestellt. Prüfgrundlage war die harmonisierte Norm EN 81-1. Zwischenzeitlich wurden dafür EU-Baumusterprüfbescheinigungen nach Richtlinie 2014/33/EU und der Prüfgrundlage EN 81-50:2014 (D) ausgestellt. Soweit für die Baumusterprüfung relevant, wurden zusätzlich Anforderungen der harmonisierten Norm EN 81-20:2014 (D) herangezogen.

Typ:	(EG-) Baumusterprüfbescheinigung	EU-Baumusterprüfbescheinigung
ERS VAR08 Größe: SZ600/_ _ _, SZ1050/_ _ _ _, SZ1700/_ _ _ _	ABV 590/3, ESV 590/5 ABV 818/1, ESV 818/2 ABV 880, ESV 880	EU-BD 590
ERS VAR09 Größe: SZ200/_ _ _, SZ800/_ _ _, SZ1700/_ _ _ _	ABV 817/1, ESV 817 ABV 729/2, ESV 729/1 ABV 591/5, ESV 591/8 ABV 591/6, ESV 591/9	EU-BD 591

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ERS VAR09 Größe: SZ200/_ _ _, SZ600/_ _ _, SZ600/_ _ _ FZ, SZ800/_ _ _, SZ1000/_ _ _, SZ1700/_ _ _ _, SZ1700/1200 CH	ABV 817/1, ESV 817 ABV 809/3, NL 11-400-1002-153-01 (R2) ABV 809/2, NL 11-400-1002-153-01 (R1) ABV 729/2, ESV 729/1 ABV 811/2, NL 11-400-1002-153-02 (R2) ABV 591/5, ESV 591/8 ABV 591/6, ESV 591/9 ABV 591/4, ESV 591/6	EU-BD 591/1
ERS VAR10 Größe: SZ1010/_ _ _ _, SZ2500/_ _ _ _, SZ5000/_ _ _ _	ABV 592/3, ESV 592/2 ABV 604/3, ESV 604/3 ABV 829/1, ESV 829/1	EU-BD 592
ERS VAR15-02 Größe: FT2110/_ _ _ _, FT2110/_ _ _ _ SY	ABV 777/5, ESV 777/5 ABV 777/3, ESV 777/3	EU-BD 777
ERS VAR07 Größe: SZ300/_ _ _, SZ420/_ _ _, SZ600/_ _ _, SZ800/_ _ _	ABV 819/2, ESV 819/1 ABV 826/2, ESV 826/1 ABV 843/1; ESV 843/1 ABV 844/1, ESV 844/1	EU-BD 819
ERS VAR07 Größe: SZ300/_ _ _, SZ420/_ _ _, SZ420/_ _ _ SY, SZ600/_ _ _, SZ600/_ _ _ SY, SZ800/_ _ _ SZ800/_ _ _ AZ	ABV 819/2, ESV 819/1 ABV 826/2, ESV 826/1 ABV 843, ESV 843 ABV 843/1; ESV 843/1 ABV 844, ESV 844 ABV 844/1, ESV 844/1	EU-BD 819/1
ERS FENIX 08 Größe: 06-_ _ _ _, 10-_ _ _ _	ASBV 905/1 ASBV972	EU-BD 905
ERS FENIX 09 Größe: 06-_ _ _ _, 10-_ _ _ _	ASBV 906/1 ASBV 973	EU-BD 906
ERS FENIX 10 Größe: 12-_ _ _ _, 20-_ _ _ _	ASBV 907/1 ASBV 974	EU-BD 907

Durch die neue Norm EN 81-50:2014 (D) werden zwar weitere Anforderungen an die Baumusterprüfung der Bremseinrichtungen als Teil der Schutzeinrichtungen für den aufwärtsfahrenden Fahrkorb gegen Übergeschwindigkeit (SAFÜ) sowie gegen unbeabsichtigte Bewegung des Fahrkorbs (SUBF) gestellt, bzw. die Anforderungen haben sich z. T. geändert. Diese wurden jedoch von der Prüfstelle bereits in der Vergangenheit berücksichtigt. Zusätzliche Versuche waren daher nicht erforderlich. Die Inhalte der EG-Baumusterprüfbescheinigungen wurden formal angepasst. Die oben genannten Sicherheitsbauteile erfüllen bereits jetzt die Anforderungen der harmonisierten Norm EN 81-50:2014 (D).

Für die Funktion als Sicherheitsbauteil als Teil der Schutzeinrichtung für den aufwärtsfahrenden Fahrkorb gegen Übergeschwindigkeit (SAFÜ) ist die Übergangsregelung nach Artikel 44 der Richtlinie 2014/33/EU uneingeschränkt anwendbar.

Zukünftig werden Schutzeinrichtungen gegen unbeabsichtigte Bewegung des Fahrkorbs (SUBF) zu Sicherheitsbauteilen nach Anhang III der Richtline 2014/33/EU.

Weiterhin darf nach Artikel 44 der Richtlinie 2014/33/EU die Bereitstellung von Sicherheitsbauteilen für Aufzüge auf dem Markt, die der Richtlinie 95/16/EG unterliegen, deren Anforderungen erfüllen und vor dem 20.04.2016 in Verkehr gebracht wurden, nicht behindert werden. Zwischenzeitlich wurde durch Notified Bodies Lift (NB-Lift) mit Dokument Nr. NB-L/2015-061 vom 06.07.2015 vorgeschlagen, den Arti-

Industrie Service

kel 44 sinngemäß auch auf Komponenten der Schutzeinrichtungen gegen unbeabsichtigte Bewegung des Fahrkorbs (SUBF) anzuwenden, um Probleme mit dem Inverkehrbringen zu vermeiden. Eine verbindliche Aussage diesbezüglich seitens NB-Lift bzw. der Kommission ist geplant, steht aber derzeit noch aus. Eine Umwandlung der bestehenden Baumusterprüfbescheinigungen in EU-Baumusterprüfbescheinigungen ist nach Überprüfung möglich.

Aufgrund dieses Sachverhalts, weiterer formaler Vorgaben und der Gültigkeit der neuen Aufzugrichtlinie 2014/33/EU ab dem 20.04.2016, können EU-Baumusterprüfbescheinigungen zwar jetzt bereits ausgestellt werden, deren Gültigkeit ist jedoch erst zum 20.04.2016 gegeben.

Mit freundlichen Grüßen

Achim Janocha
Leiter der Zertifizierungsstelle
für Produkte der Fördertechnik

Christian Rührmeyer
Niederlassung München
Abteilung Fördertechnik

Warner Electric Europe
7, rue Champfleur
B.P. 20095
49182 St Barthélemy d'Anjou

DECLARATION OF CONFORMITY TO THE DIRECTIVE 2014/33/EU

Warner Electric-Europe

This is to declare that the following safety device listed in appendix III point 2 of the directive 2014/33/EU

Product: **Braking system**

According to the following specification:

Brake type	Part N°	Drawing N°	Voltage (Vdc)	Torque or Tangential Force	EU type examination + NB		T10 (ms)	T90 (ms)
ERS VAR07 SZ420/350 SY	30315184	I-112107260	103/72	2x350Nm	EU-BD819/1	NB0036	95	160
	30315418	I-112107763	103/72	2x350Nm	EU-BD819/1	NB0036	95	160
ERS VAR07 SZ600/550 SY	30315185	I-112107261	103/72	2x550Nm	EU-BD819/1	NB0036	80	135
	30315419	I-112107764	103/72	2x550Nm	EU-BD819/1	NB0036	80	135
ERS VAR08 SZ1700/1700	To Create	I-112108241	180/90	1700Nm	EU-BD590	NB0036	70	250
ERS VAR09 SZ1700/1250	30351931	I-112108213	103/52	2x1250Nm	EU-BD591	NB0036	80	230
ERS VAR09 SZ1700/1700	30315074	I-112106605-R	103/72	2x1700Nm	EU-BD591	NB0036	50	160
ERS VAR10 SZ2500/2500	30343591	I-112108034	180/90	2500Nm	EU-BD592	NB0036	70	170
ERS VAR10 SZ2500/3000	30343588	I-112108036	180/90	3000Nm	EU-BD592	NB0036	70	230
ERS VAR10 SZ5000/5000	30348450	I-112108167	180/90	5000Nm	EU-BD592	NB0036	125	255
ERS VAR15-02 FT2110/2415N SY	30315189	I-112107265	103/72	2415N	EU-BD777	NB0036	70	100
	30315417	I-112107762	103/72	2415N	EU-BD777	NB0036	70	100
ERS FENIX 09 10-1200	30343444	I-112108053	103/72	2x1200Nm	EU-BD906	NB0036	100	185

Warner Electric Europe 7, rue Champfleur B.P. 20095 49182 St Barthélemy d'Anjou	DECLARATION OF CONFORMITY TO THE DIRECTIVE 2014/33/EU	Warner Electric-Europe

Year of manufacture : **See brake label**
Manufactured by : **Warner Electric Europe**

That has obtained the UE type examination N° ***(see table above)*** by the following notified body :

Notified body (NB)
TÜV SÜD Industrie Service GmBh
Westendstr. 199
D 80686 MÜNCHEN

Covered par the Quality Insurance attestation Module E N°2002/2820/013D delivered by the following body :

AFNOR Certification NB 0333
11 rue Francis de Pressenssé
93571, La pleine St Denis Cedex France

Is compliant with the Directive 2014/33/EU and applied the harmonized standard EN81-20:2014 and EN81-50:2014

Function : **Operation Quality Manager**
Name : **Ms Lucie Godicheau**
Date : 19/04/16
Visa :

WARNER ELECTRIC EUROPE
CS 20095
49182 ST-BARTHELEMY D'ANJOU CEDEX
Tél. 02 41 21 24 24
Fax. 02 41 21 24 00
E-mail : warnerelectric-eu.com