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EU-TYPE EXAMINATION CERTIFICATE

	Issued by Liftinstituut B.V. identification number Notified Body 0400, commissioned by Decree no. 2018-0000125182
Certificate no.	: NL15-400-1002-142-05 Revision no.: 2
Description of the product	: Energy accumulation buffers with nonlinear characteristics
Trademark	: ETN
Type no.	: EN 15
Name and address of the manufacturer	: Pleiger Kunststoff GmbH & Co. KG Im Hammertal 51 D-58456 Witten, Germany
Name and address of the certificate holder	: Elastomer Technik Nürnberg GmbH An der Kaufleite 20 D-90562 Kalchreuth, Germany
Certificate issued on the following requirements	: Lifts Directive 2014/33/EU
Certificate based on the following standard	: EN 81-20:2014 Clause 5.8 EN 81-50:2014 Clause 5.5
Test laboratory	: None
Date and number of the laboratory report	: None
Date of EU-type examination	: Jan.– Aug. 2015, June 2016, Nov. – Dec. 2020
Additional document with this certificate	: Report belonging to the EU-type examination certificate no.: NL15-400-1002-142-05 Rev. 2
Additional remarks	: This revision replaces certificate NL15-400-1002-142-05 Rev. 1 of 23-06-2016 Dimensions Ø125 x 154 mm Load range 1.0 m/s 400 – 1600 kg
Conclusion	: The safety component meets the requirements of the Lifts Directive 2014/33/EU taking into account any additional remarks mentioned above
Amatardam	J OD

Certification decision by

Amsterdam

Date : 07-Valid until : 07-

: 07-12-2020 : 07-12-2025 ing. P. J. Peeters Manager Certification

Liftinstituut B.V. · Buikslotermeerplein 381 · P.O. Box 36027 · 1020 MA Amsterdam Netherlands · www.liftinstituut.com · Registered at the KvK under number 34157363 ·





Report EU-type examination

Report belonging to EU-type examination certificate number	: NL15-400-1002-142-03
Date of issue of original certificate	: 31-08-2015
Certificate applies to	: Safety component
Revision number / date	: 2/07-12-2020
Requirements	: Lifts Directive 2014/33/EU Standards: EN 81-20:2014 Clause 5.8 EN 81-50:2014 Clause 5.5
Project number	: P160108-01, P200265

General specifications 1

Description of the product		Energy accumulation buffers with nonlinear characteristics
Trademark	:	ETN
Type no.	:	EN 15
Name and address of the manufacturer	:	Pleiger Kunststoff GmbH & Co. KG Im Hammertal 51 D-58456 Witten, Germany
Laboratory	:	-
Address of examined component	:	Liftinstituut, Alphen aan den Rijn, The Netherlands, Im Hammertal 51, 58456 Witten, Germany
Data of examination	:	Jan.– Aug. 2015, June 2016, Nov. – Dec. 2020
Examination performed by	:	R. Kaspersma, E. Verkaik

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2. Description safety component

The Energy accumulation buffers with nonlinear characteristics EN 15 from ETN is produced by Pleiger Kunststoff are made of Polyurethane. The buffer tested is a buffer with a height of 154 mm and a diameter of 125 mm. The data plate information is provided on a ring fixed into the groove of the buffer.

See annex 1 for a general overview of the product.

3. Examinations and tests

The examination covered a check whether compliance with the Lift Directive 2014/33/EU is met, if possible based on the harmonized product standards EN 81-20 clause 5.8 and EN 81-50 clause 5.5.

The examination included:

- Examination of the technical file (See annex 2).
- Examination of the representative model in order to establish conformity with the technical file.
- Free fall tests to check compliance with the requirements.
- A static compression curve.

Results 4.

After the final examination the product and the technical file were found in accordance with the requirements. The functional tests passed without remarks. The load tests passed without remarks and did not lead to permanent deformations or loss of stability.

For detailed test results see Test report belonging to EC type-examination certificate no.: NL15-400-1002-142-05.

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Buikslotermeerplein 381	Tel. +31 (0)20 - 435 06 06	VAT number: NL.8103.99.441.B.01	IBAN:	Since 1933						
NL - 1025 XE Amsterdam	contact@liftinstituut.com	Payee name:	NL22 ABNA 0411 840 630							
The Netherlands	www.liftinstituut.com	Liftinstituut Holding B.V.	BIC: ABNANL2A							

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5. Conditions

Additional to or in deviation of the applicable demands in the considered requirements / standards (see certificate and/or page 1 of this report), the following conditions shall be taken into account:

- Load range for a rated speed of 1.0 m/s:
- Temperature range material:
- Nominal temperature range:
- Humidity range
- Minimum life time

400 – 1600 kg -40°C – 80°C +5°C – 40 °C 0% - 70% 5 years

6. Conclusions

Based upon the results of the EU-type examination Liftinstituut B.V. issues an EU-type examination certificate.

The EU-type examination certificate is only valid for products which are in conformity with the same specifications as the type certified product. The certificate is issued based on the requirements that are valid at the date of issue. In case of changes of the product specifications, changes in the requirements or changes in the state of the art the certificate holder shall request Liftinstituut B.V. to reconsider the validity of the certificate.

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CE marking and EU Declaration of conformity 7.

Every safety component that is placed on the market in complete conformity with the examined type must be provided with a CE marking according article 18 of the Lift directive 2014/33/EU under consideration that conformity with eventually other applicable Directives is proven. Also every safety component must be accompanied by an EU declaration of conformity according to annex II of the Directive in which the name, address and Notified Body identification number of Liftinstituut B.V. must be included as well as the number of the EU-type examination certificate.

An EU type-certified safety component shall be random checked e.g. according to annex IX of the Lift directive 2014/33/EU before these safety components may be CE-marked and may be placed on the market. For further information see regulation 2.0.1 'Regulations for product certification' on www.liftinstituut.com.

Prepared by:

E. Verkaik **Product Specialist Certificatie** Liftinstituut B.V.

Certification decision by:

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Annexes



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Annex 2 Documents of the Technical File which were subject of the examination

title	document number	date
User Manual	-	07-03-2008
Drawing	15-055	20-04-2015
Pleiger Statement		12-08-2015
Druckprüfung an Kunststoffpuffern	Protokoll Nr. PRCS006488	30.11.2020
EN15		

Annex 3. Reviewed deviations from the standards

EN xx-x par.	Requirement	Accepted design
X.X.X		

Annex 4 Revision of the certificate and its report

Rev.:	Date	Summary of revision
-	August 31 st , 2015	Original issue
1	June 23 rd , 2016	Implementing New Lifts Directive
2	07-12-2020	Extended certificate period of 5 years

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EU-Declaration of Conformity for ETN-lift buffers

Subject:

Dimensions and load ranges

ETN-lift buffers see table, page 2

Materials:ETN-lift bufferETN®- Cell-PUMounting platesSteel

We hereby declare that the construction conforms to the relevant regulations of the

Harmonised standards used:

Nominated test centre for the execution of EC type examination test:

EC type examination test certificate No.:

Production monitoring by:

Management:

lift buffer attachments with non-linear characteristic lift directive 2014/33/EU

EN 81-20:2014 EN 81-50:2014

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see table, page 2

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Year of manufacture of buffer attachment:

2020

Date

14/12/2020

C Jelun he

Christoph Schaake Signature



EU type examination for ETN-lift buffer

The type examination tests for ETN[®]-lift buffers made from Cell-PU have been carried out in accordance with lift directive 2014/33/EU. The certificate number records the permissible load ranges for every type of lift buffer. An EU type examination test certificate can be issued for every type of lift buffer on request.

min./max. load of range [kg] – nominal speed Dimension [mm] Buffer type 0,5 m/s 0,63 m/s 0,8 m/s 1,0 m/s Ø 125 x 150 EN 15 400 1.600 400 EC type examination test certificate No.: NL15-400-1002-142-05 Rev. 2

Specified office:

LIFTINSTITUUT B.V. Buikslotermeerplein 381 NL-1025 XE Amsterdam page 2

Operating instructions for ETN lift buffers

ETN lift buffers are used as springs and damping elements for lifts. Depending on the type of lift (with or without choke or choke non-return valve), **ETN** lift buffers are available in a range of sizes for different max. and min. loads. The load ranges for **ETN** lift buffers are recorded in the EC type examination certificates.

ETN lift buffers are manufactured with a circular steel mounting plate with central hole for central screw fitting.

ETN lift buffers can be arranged side-by-side or in line, but the following must be noted when fitting the units:

Side-by-side mounting of the lift buffers

The distance between the outer surfaces of the buffer must be at least **40** % of the buffer diameter (2, p, h) for (2, 400, mm, distance, 40, mm)

(e.g. buffer \oslash 100 mm, distance 40 mm)

Ambient conditions

Temperature range:	-40°C to +80°C, continuous use up to 50°C
Humidity:	70% relative humidity at room temperature
	Avoid continuous contact with water
Contamination:	Oil and grease compatible, but protect agains acids and cleaning agents.

Life, maintenance

ETN lift buffers have a minimum life of at least 5 years, but we cannot guarantee this. They are maintenance-free, but they should be subjected to regular visual checks when inspecting and maintaining safety components. Should the shape of the buffer have undergone considerable visible change, it must be exchanged for a new item. The buffer must also be changed after the lift cage has dropped hard on to the buffer. Changes in colour of the buffer from white to brown relate to the material and have no influence on the technical and physical characteristics of **ETN** lift buffers.

Note

ETN lift buffer may only be used when it has been determined that the lift installation conforms to the **Lift Directive 2014/33/EU**. **ETN** lift buffers must not be subjected to a continuous load and therefore must not be used as resting point during repair and maintenance work.

07/03/2008

Lift buffers corresponding to EN 81 Calculation

Customer		Lift-no.		
Operating speed V =		m/s		
1. Cage + Working load				
Number of buffer (n) =				
$m_{max} = \frac{Q + F}{n} = - +$	_ =	kg	Puffer po	
m _{min} =	- =	kg	Dunei-no.	
2. Counterweight				
Number of buffer (n) =				
$m_{\rm G} = \frac{F + \frac{Q}{2}}{n} = \frac{+}{n}$	2 =	kg	Buffer-no.	
m = Weight [kg]		F = Cage weight	[kg]	
Q = Working load [kg]		m _G = Counterweight	t [kg]	
Lift producer:		Technical regularity	v body:	
Signature:		Signature:		
Dated:		Dated:		