

EU-TYPE EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.
identification number Notified Body 0400,
commissioned by Decree no. 2016-0000038870

Certificate no. : NL09-400-1002-047-07 Revision no.: 3

Description of the product : Single directional progressive safety gear

Trademark, type : Zorlu, Z-06 PSG & Z-06-T PSG

Name and address of the manufacturer : Zorlu Asansör San.ve Tic.LTD.ŞTİ
Kazim Karabekir Mah.Dogu Cad. No 17/A
Umraniye - Istanbul, Turkey

Name and address of the certificate holder : Zorlu Asansör San.ve Tic.LTD.ŞTİ
Kazim Karabekir Mah.Dogu Cad. No 17/A
Umraniye - Istanbul, Turkey

Certificate issued on the following requirements : Lifts Directive 2014/33/EU

Certificate based on the following standard : Parts of: EN 81-1:1998 + A3:2009,
EN 81-20:2014, EN 81-50:2014

Date of EU-type examination : May 2012 - March 2013, February – July 2017

Additional document with this certificate : Report belonging to the EU-type examination certificate
no.: NL09-400-1002-047-07REV.3

Additional remarks : Max. nominal speed 1.60 m/s
Max. tripping speed 2.16 m/s
For oiled guide rails only
Downwards safety gear operation
Permissible load (drawn) (3/3+3/3) 626 - 1915 kg
Permissible load (mach) (3/3+3/3) 632 - 2317 kg
Permissible load (drawn) (4/4+4/4) 2143 - 3064 kg
Permissible load (mach) (4/4+4/4) 2126 - 3092 kg
Key parameters for use as UCMP (downwards only):
For oiled guide rails only
Brake force (drawn) (3/3+3/3) 10239 - 30112 N
Brake force (mach) (3/3+3/3) 10142 - 35836 N
Brake force (drawn) (4/4+4/4) 34285 - 49016 N
Brake force (mach) (4/4+4/4) 32470 - 49470 N
Max distance travelled before engagement : 15 mm

Conclusion : The safety component meets the requirements of the Lifts
Directive 2014/33/EU taking into account any additional remarks
mentioned above.

Amsterdam

Date : 20-07-2017
Valid until : 20-07-2022

ing. J.L. van Vliet
Managing Director

Certification decision by

Report EU-type examination

Report belonging to EU-type examination certificate no. : NL09-400-1002-047-07
Date of issue of original certificate : July 24, 2009
Concerns : Safety component
No. and date of revision : 3; 20-07-2017
Requirements : Lifts Directive 2014/33/EU
Standards: EN 81-1:1998 + A3:2009, EN81-20:2014, EN81-50:2014
Project no. : P170027

1. General specifications

Name and address manufacturer : Zorlu Asansör San.ve Tic.LTD.ŞTİ
Kazim Karabekir Mah.Dogu Cad. No 17/A
Umraniye - Istanbul, Turkey
Description of safety component : Progressive safety gear
Type : Z-06 PSG & Z-06-T PSG
Address of examined component : Zorlu Asansör San.ve Tic.LTD.ŞTİ
Kazim Karabekir Mah.Dogu Cad. No 17/A
Umraniye - Istanbul, Turkey
Data of examination : April - July 2009, February - March 2011,
May - June 2012, February – July 2017
Examination performed by : W.Visser

2. Description safety component

The Z-06 PSG is a progressive safety gear for one direction. It is designed for lifts with lubricated machined guide rails of 9 and 16 mm and with a nominal speed up to 1.6 m/s or with a tripping speed of 2.16 m/s of the overspeed governor. The Z-06 PSG safety gear can be featured with a 3/3+3/3 or 4/4+4/4 leaf disc spring set. The contact provided checks if the progressive safety gear is in the ready position. The safety gear is operated by an overspeed governor. The contact of the safety gear will automatically reset when the safety gear is back in its ready position. The contact can be used up to 220 V and 3 A AC.

The Z-06-T PSG is a tandem set of 2 x Z-06 PSG safety gears. It is incorporated in a metal housing of 8mm plating. Both safety gear sets are connected by 2 U-profiles and 20 x M16 bolts). In this case the allowed loads and created forces can be doubled.

Z-06-T PSG

Double Safety gear set	2 x Z-06 PSG
Required minimum actuating force	200 N
Required minimum tension pulley force	400 N

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 81-1:1998+A3:2009, EN81-20:2014 and EN81-50:2014.

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.
- Inspections and tests to check compliance with the requirements.

According to annex F.3.3.2. of EN 81-1+A3 and clause 5.3.3 of EN 81-50 several tests were made. For the test a special test-tower was designed.

To use the safety gear as a stopping element the tests described in EN81-1/2 + A3, annex F8 and EN81-50 clause 5.8 are performed. For this the results of the tests with minimum and maximum P+Q that were performed earlier are used to calculate the applicable range of the braking force. Additional testing has been done for minimum P+Q at very slow speed.

4. Results

4.1. Calculations

The calculations were checked and found in order.

4.2. Measurements

The tests were performed by dropping the guided mass until the safety device activation rope was pulling at the mechanism. It is checked that the force of the activation rope did not pull too hard to have significant influence on the measurements.

Furthermore the maximum travelled vertical distance before engagement of the safety gear elements has been measured.

The graphs show the adjustment for 9 mm guide rails. The adjustment value should be added with 7 mm to get the value for 16 mm guide rails.

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.

5. Conditions

On the EU-type examination certificate the following conditions apply:

- The safety gear shall be used for lubricated 9 or 16 mm machined or drawn guide rails only.
- The lubrication means shall be of quality HLP 32 – HLP 46.
- Permissible load for machined guide rails:
 - o The permissible load on the safety gear shall be in between 632 kg and 2317 kg, in case 3/3+3/3 spring set is applied.
 - o The permissible load on the safety gear shall be in between 2126 kg and 3092 kg, in case 4/4+4/4 spring set is applied.
- Permissible load for drawn guide rails:
 - o The permissible load on the safety gear shall be in between 626 kg and 1915 kg, in case 3/3+3/3 spring set is applied.
 - o The permissible load on the safety gear shall be in between 2143 kg and 3064 kg, in case 4/4+4/4 spring set is applied.
- The safety gear shall be used with nominal speeds up to 1.60 m/s.
- The safety gear shall be used with tripping speeds up to 2.16 m/s.
- The safety gear shall be adjusted according annex 2. For the breaking force multiply the load by 16.
- Maximum distance travelled before engagement is 15mm.
- The user manual shall be provided with the component.
- After release of the safety gear, it shall require the intervention of a competent maintenance person to return the lift in to service.

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.

7. CE marking and EU Declaration of conformity

Every safety component that is placed on the market in complete conformity with the examined type must be provided with a CE marking according to 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:

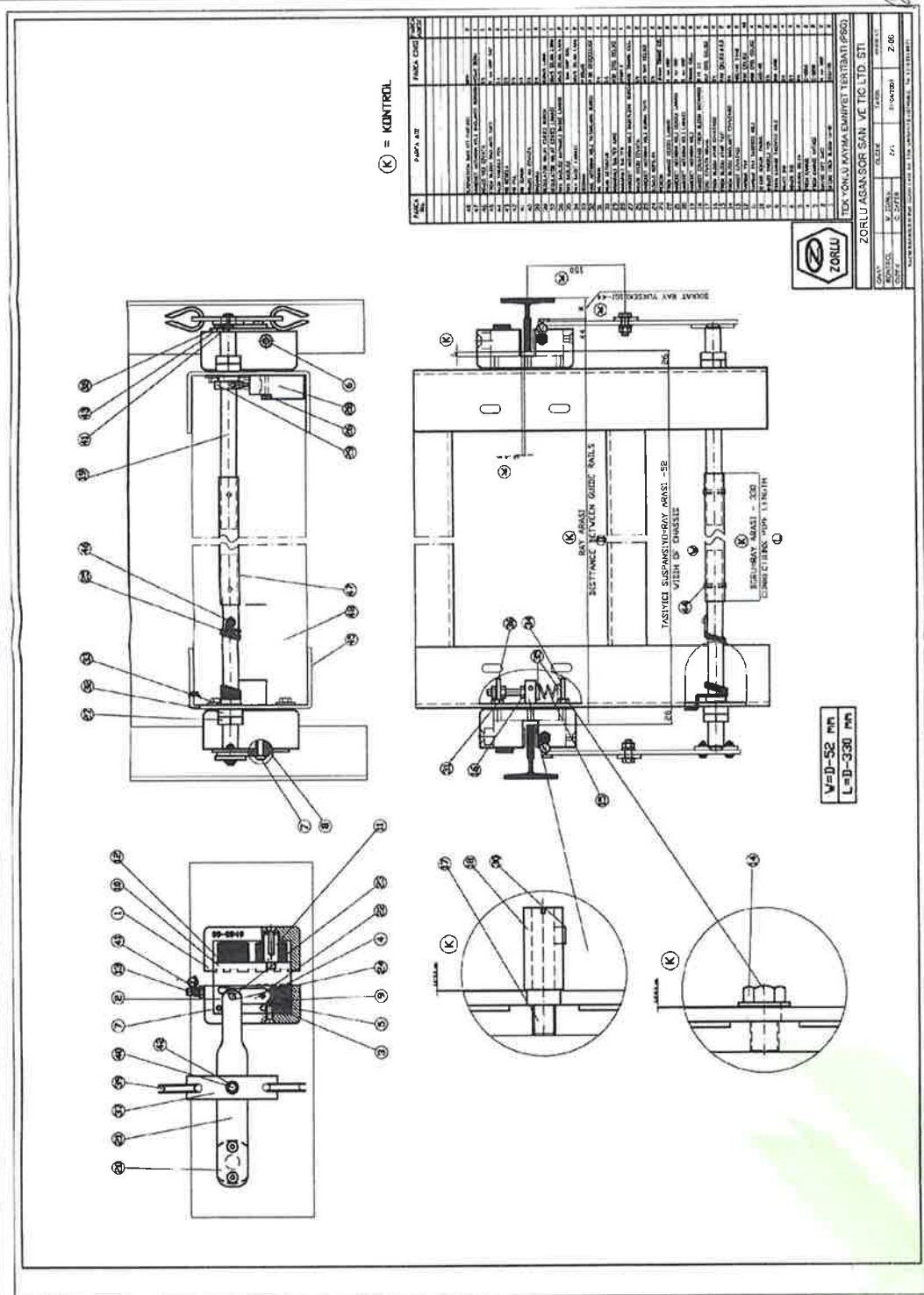
Certification decision by:



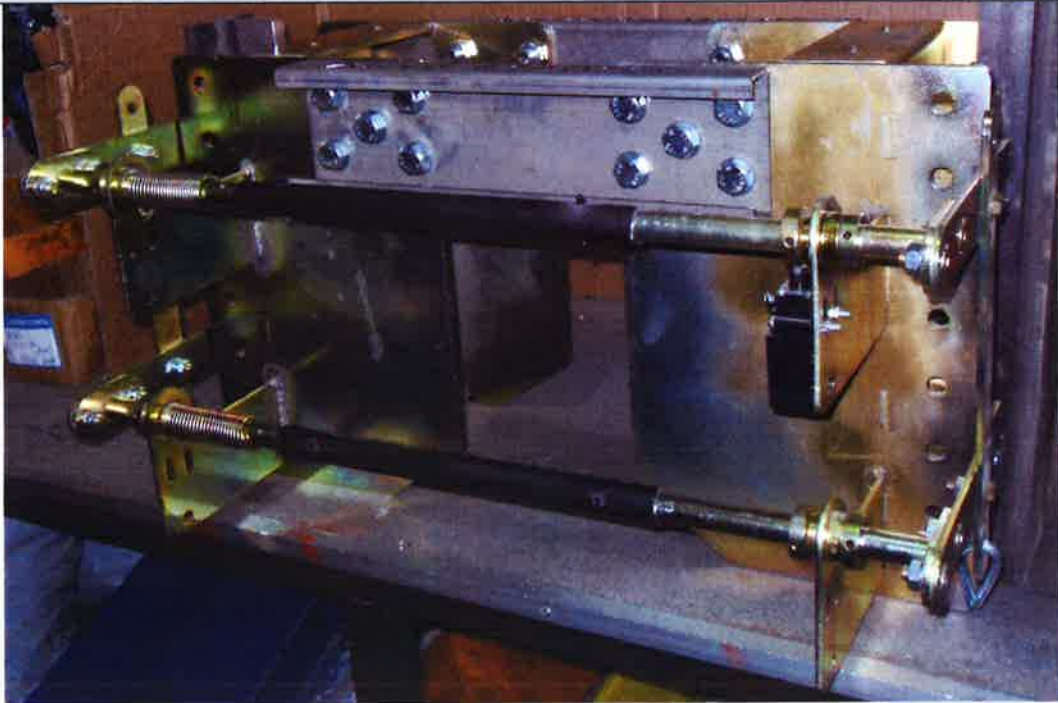
W. Visser
Product Specialist Certification
Liftinstituut B.V.

Annexes

Annex 1a : General overview drawing of Z-06 PSG

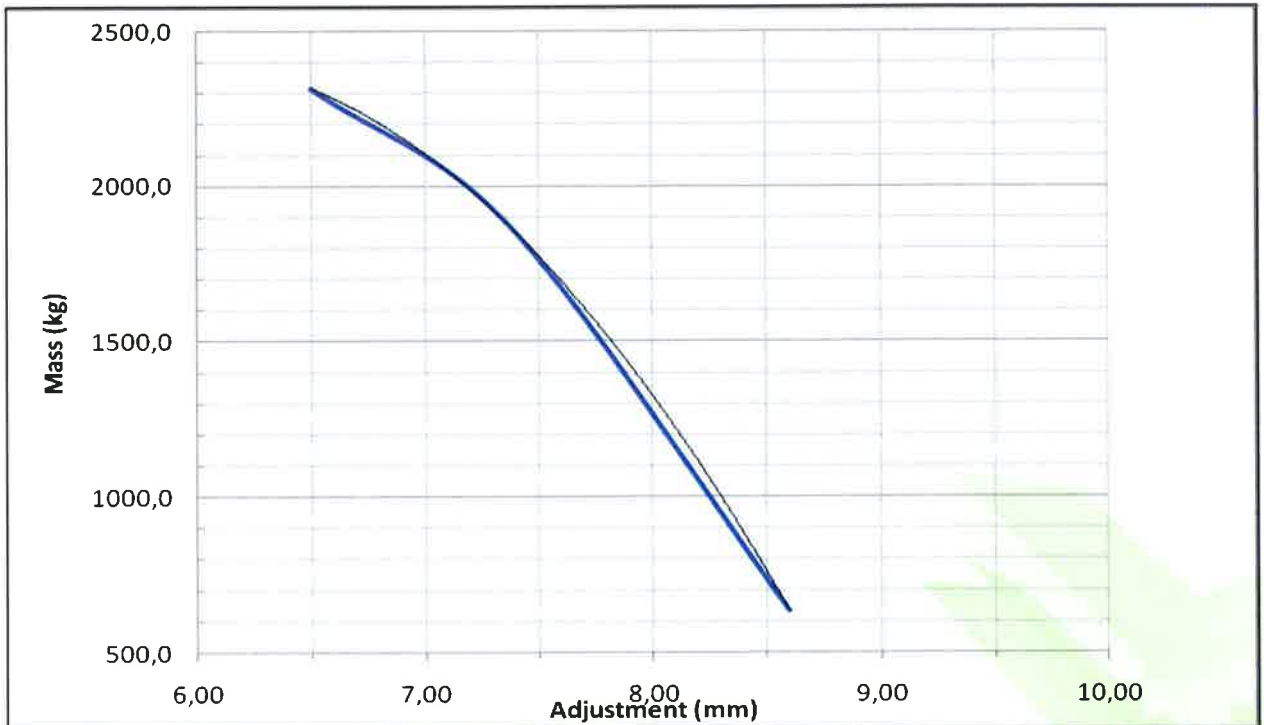


Annex 1b : Picture of Z-06-T PSG

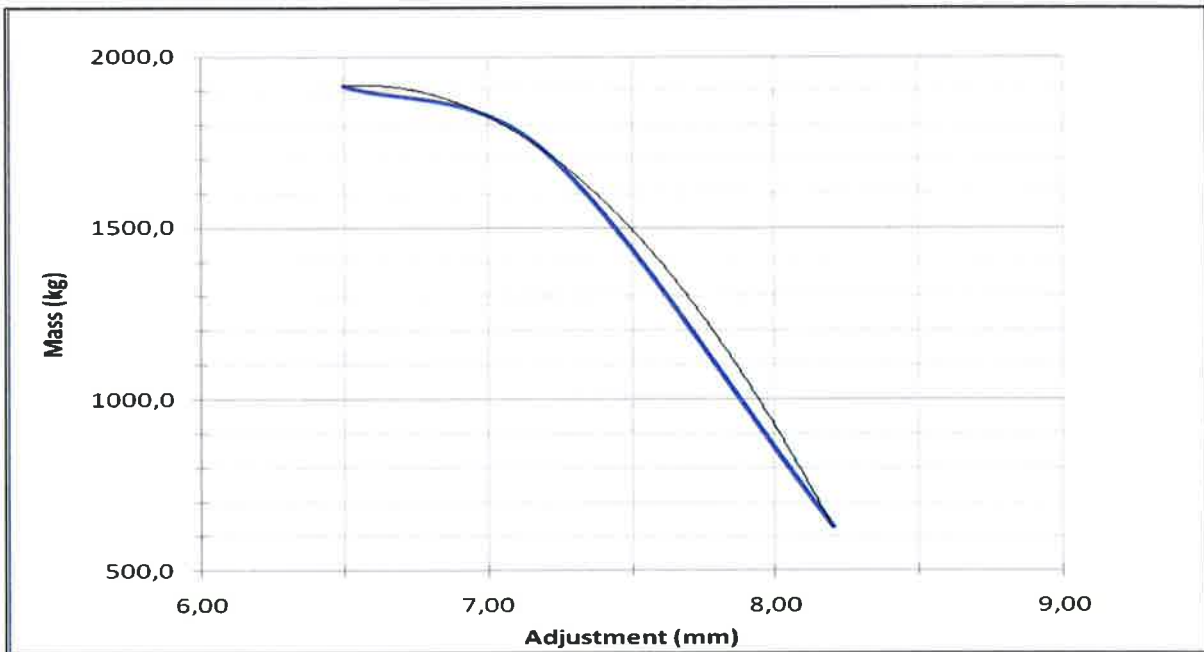


Annex 1c : Adjustment tables for Z-06 PSG (for 16 mm add 7 mm)

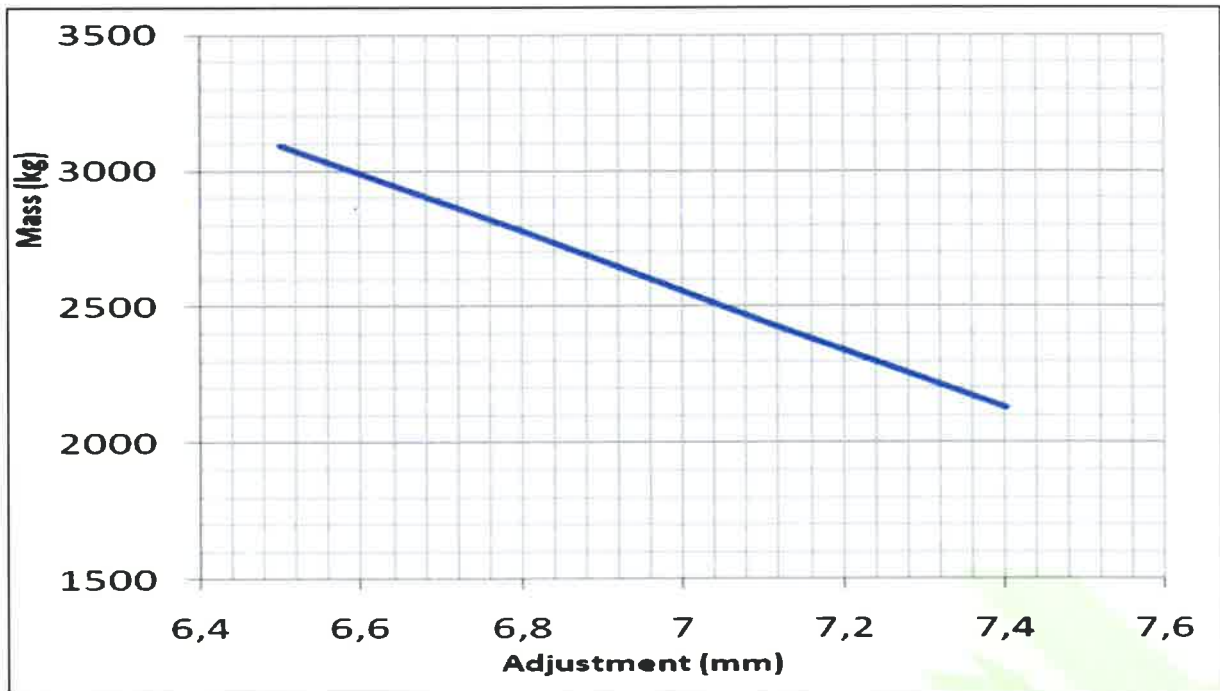
Machined 3/3+3/3



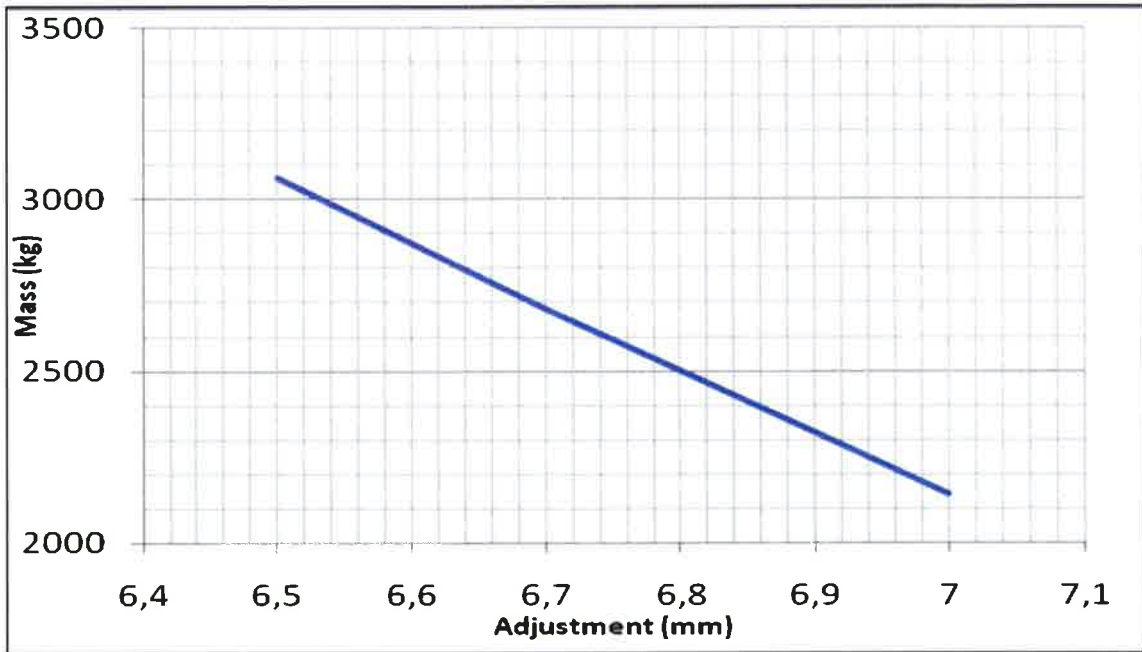
Drawn 3/3+3/3



Machined 4/4+4/4



Drawn 4/4+4/4



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

title	document number	date
Operation & Maintenance manual	Version 2	04-07-2017
Calculations	Version 1	29-06-2012
Tables and Diagrams	Version 2	12-11-2012
Drawings	Version 2	12-11-2012

Annex 3. Reviewed deviations from the standards

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

Annex 4 Revision overview

REVISIONS OF THE CERTIFICATE AND THE REPORT

Rev.:	Date	Summary of revision
-	24-07-2009	Original
1	10-03-2011	Change of spring sets and extension of range.
2	28-06-2012	Additional certification as UCMP means
3	20-07-2017	Include double SG and update to 2014/33/EU, EN 81-20/50