

TYPE-EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.

Certificate nr. : NL12-400-1002-169-02 Revision nr.: -

Description of the product : Safety gear as braking part of Unintended Car Movement Protection (UCMP)

Trademark, type : Schlosser, KB55S

Name and address of the manufacturers : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany

Name and address of the certificate holder : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany

Certificate issued on the following requirements : Lifts Directive 95/16/EC,
EN 81-1:1998+A3:2009
EN 81-2:1998+A3:2009

Test laboratory : -

Date and number of the laboratory report : -


Date of type-examination : April – June 2012


Annexes with this certificate : Report belonging to the type-examination certificate
Nr.: NL12-400-1002-169-02

Additional remarks : None

Conclusion : The lift component meets the requirements referred to in this certificate taking into account any additional remarks mentioned above.

Issued in Amsterdam
Date of issue : July 24th 2012


ing. A.J. van Ommen
Manager Business Unit
Certification


Certification decision by

Report type-examination

Report belonging to type-examination certificate no. : NL12-400-1002-169-02
Date of issue of original certificate : July 24th, 2012
No. and date of revision of certificate : -.-
No. and date of revision of report : -.-
Concerns : Lift component
Revision concerns : -.-
Requirements : Lifts Directive 95/16/EC
EN 81-1:1998+A3:2009
EN 81-2:1998+A3:2009
Project no. : P120073-02

1. General specifications

Name and address manufacturers : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany

Description of lift component : Safety gear as braking part of Unintended Car Movement Protection (UCMP)

Type : Schlosser KB55S

Test Laboratory : -

Data of type-examination : April 2012

Examination performed by : A. van den Burg

2. Description lift component

The KB55S is a wedge type progressive safety gear intended and already certified for use as a safety gear in downward direction and when mounted in the counterweight as an ascending car overspeed protection against uncontrolled upward movement.

This certificate is an addition that allows the component to be also used as the braking element of an uncontrolled car movement protection as described in EN 81-1/2:1998+A3:2009.

The safety gears must be activated by a suitable governor that shall be pre triggered when the car doors are open, this governor shall be certified as part of an unintended car movement protection.

Alternatively, another means that is certified to detect uncontrolled car movement in combination with a suitable safety gear activation mechanism can be used.

The safety gear may be used in down direction only, but in case it is mounted in the safety gear it may be used to stop unintended car movements in upward direction.

The user shall verify by calculation (or testing) that the lift is stopped within the allowable limits as specified in EN 81-1:1998+A3:2009 art. 9.11.5 and EN 81-2:1998+A3:2009 art. 9.13.5 .

The calculation shall take into account all delays that increase the stopping distance. Delays to be considered for calculation of the stopping distance:

- Eventual delay of the triggering.
- Delay of the activation mechanism.
- Delay of the safety gear before the full braking force is reached (60 mm).
- The additional braking distance of the safety gear under worst case loading conditions from maximum possible triggering speed when it is not already pre triggered at standstill.

For application in down direction, all application conditions and limits as mentioned in the certificate AFV 374/2 shall be respected.

For application in upward direction of car, all application conditions and limits as mentioned in the certificate ABV 374/2 shall be respected.

The maximum delay of the safety gear from start of activation until full brake force is reached can be expressed in an additional travel of 60 mm (see Annex 1).

The type of mechanism determines the additional travel of the activation mechanism.

In case a standard Schlosser activation mechanism is used, the delay of the safety gear including mechanism is found to be 100 mm at maximum. This value is found when the governor rope is mounted to the outer hole of the activation lever, in case the governor is mounted to the middle or inner hole, the activation distance is reduced (see Annex 2).



3. Examinations and tests

The examination covered a check whether compliance with the Lifts Directive is met. The examination is based on EN81-1:1998+A3:2009 clause 9.11 and EN81-2:1998+A3:2009 clause 9.13. Issues not covered by the above mentioned standards are directly related to the essential demands of the Lifts Directive.

The examination included:

- examination of the technical file consisting of:
 - all relevant information of the component,
 - technical drawings,
 - service manual.
- examination of the representative model in order to establish conformity with the technical file.
- tests and inspections to check compliance with the essential demands of the Lifts Directive, special attention is given to the activation delay and to the fact that the safety gear shall also work at low activation speed.

4. Results

After the examination the safety gear and the technical file were found in accordance with the requirements.

The functional tests passed without remarks and the safety gears activated within the defined distance, also at very low activation speed.

A description of the tests performed is given in "Test report type-examination NL12-400-1002-169-01/05" issued by the Liftinstituut on July 24th 2012.

5. Conditions

On the type-examination certificate the following conditions apply:

- An additional calculation shall be done to check whether the stopping distance of the car is within the limits as required by EN 81-1:1998+A3:2009 art. 9.11.5. For each lift model the calculations shall be checked and approved. When the braking force "F" of the safety gear is not directly provided, for calculations it can be taken as 16x the adjusted mass, $F=16(P+Q)$, Car mass "P" and nominal load "Q" in [kg], "F" in [N].
- For application in down direction, all application conditions and limits as mentioned in the certificate AFV 374/2 shall be respected.
- For application in upward direction of car, all application conditions and limits as mentioned in the certificate ABV 374/2 shall be respected.

6. Conclusions

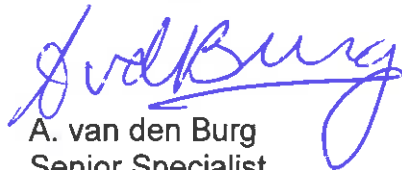
Based upon the results of the type-examination Liftinstituut B.V. issues a type-examination certificate.

The type-examination certificate is only valid for products which are in conformity with the same specifications as the type certified product. Products deviating of these specifications need additional examination by Liftinstituut B.V. in order to determine whether a new type-examination certificate is necessary.

Additional examination shall be requested by the certificate holder.

The type-examination certificate is issued based on the requirements that are valid at the date of issue. The manufacturer shall request from Liftinstituut B.V. the review of the validity of the type examination certificate, taking into account the changes in the requirements or changes in the state of the art of the product, every 5 years.

Prepared by:



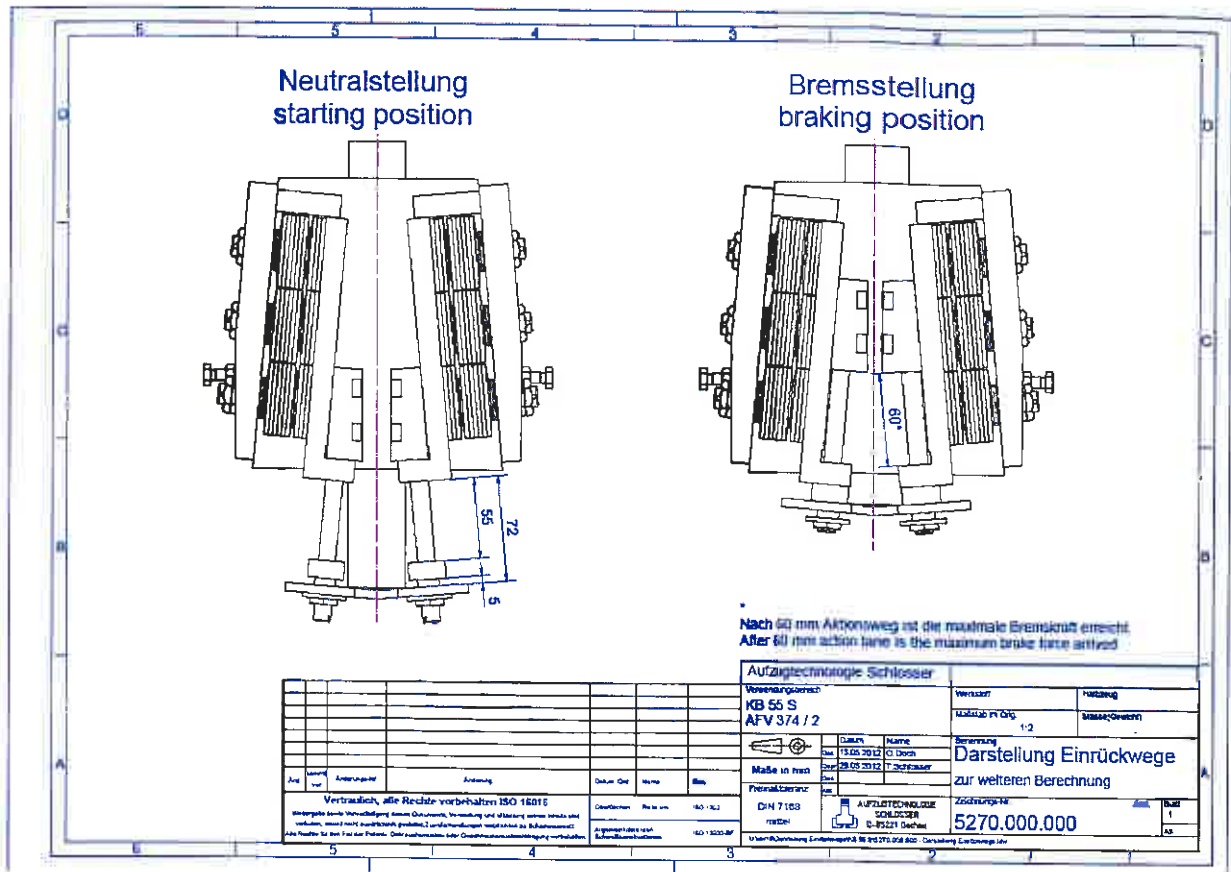
A. van den Burg
Senior Specialist
Liftinstituut B.V.

Certification decision by:



Annexes

Annex 1 : Activation distance of KB55S safety gear (maximum distance travelled between start of activation until full force in both down direction and up direction of car when mounted to the counterweight)



TYPE-EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.

Certificate nr. : NL 12-400-1002-169-05 Revision nr.: -

Description of the product : Safety gear as braking part of Unintended Car Movement Protection (UCMP)

Trademark, type : Schlosser, EB 75 GS

Name and address of the manufacturers : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany

Name and address of the certificate holder : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany

Certificate issued on the following requirements : Lifts Directive 95/16/EC,
EN 81-1:1998+A3:2009,
EN 81-2:1998+A3:2009

Test laboratory : -

Date and number of the laboratory report : -

Date of type-examination : April – June 2012

Annexes with this certificate : Report belonging to the type-examination certificate
Nr.: NL 12-400-1002-169-05

Additional remarks : None

Conclusion : The lift component meets the requirements referred to in this certificate taking into account any additional remarks mentioned above.

Issued in Amsterdam
Date of issue : July 24th 2012


ing. A.J. van Ommen
Manager Business Unit
Certification


Certification decision by

Report type-examination

Report belonging to type-examination certificate no. : NL12-400-1002-169-05
Date of issue of original certificate : July 24th, 2012
No. and date of revision of certificate : -.-
No. and date of revision of report : -.-
Concerns : Lift component
Revision concerns : -.-
Requirements : Lifts Directive 95/16/EC,
EN 81-1:1998+A3:2009,
EN 81-2:1998+A3:2009
Project no. : P120073-02

1. General specifications

Name and address manufacturers : Schlosser Aufzugtechnologie GmbH
Felix-Wankel-Strasse 4
D-85221 Dachau
Germany
Description of lift component : Safety gear as braking part of Unintended
Car Movement Protection (UCMP)
Type : Schlosser EB 75 GS
Test location : -
Data of type-examination : April 2012
Examination performed by : A. van den Burg

2. Description lift component

The EB 75 GS is an eccentric type progressive safety gear intended and already certified for use as a safety gear in downward direction and as an ascending car overspeed protection in upward direction.

This certificate is an addition that allows the component to be also used as the braking element of an uncontrolled car movement protection as described in EN 81-1/2:1998+A3:2009.

The safety gears must be activated by a suitable governor that shall be pre triggered when the car doors are open, this governor shall be certified as part of an unintended car movement protection.

Alternatively, another means that is certified to detect uncontrolled car movement in combination with a suitable safety gear activation mechanism can be used.

The safety gear may be used in up or down direction, depending on the mounting orientation.

The user shall verify by calculation (or testing) that the lift is stopped within the allowable limits as specified in EN 81-1:1998+A3:2009 art. 9.11.5 and EN 81-2:1998+A3:2009 art. 9.13.5.

The calculation shall take into account all delays that increase the stopping distance. Delays to be considered for calculation of the stopping distance:

- Eventual delay of the triggering.
- Delay of the activation mechanism.
- Delay of the safety gear before the full braking force is reached (77 mm).
- The additional braking distance of the safety gear under worst case loading conditions from maximum possible triggering speed when it is not already pre triggered at standstill.

For application in down direction, all application conditions and limits as mentioned in the certificate AFV 289/2 shall be respected.

For application in upward direction, all application conditions and limits as mentioned in the certificate ABV 289/2 shall be respected.

The maximum delay of the safety gear from start of activation until full brake force is reached can be expressed in a rotation angle of 90° of the eccentric which is equivalent to an additional travel of 77 mm (see Annex 1).

The type of mechanism determines the additional travel of the activation mechanism.

In case a standard Schlosser activation mechanism is used, the delay of the safety gear including mechanism in upward activation direction is found to be 105 or 110 mm at maximum. This value is found when the governor rope is mounted to the outer hole of the activation lever, in case the governor is mounted to the middle or inner hole, the activation distance is reduced (see Annex 2 for the combination with KB55S and Annex 3 for the combination with KB55SS).

3. Examinations and tests

The examination covered a check whether compliance with the Lifts Directive is met. The examination is based on EN81-1:1998+A3:2009 clause 9.11 and EN81-2:1998+A3:2009 clause 9.13. Issues not covered by the above mentioned standards are directly related to the essential demands of the Lifts Directive.

The examination included:

- examination of the technical file consisting of:
 - all relevant information of the component,
 - technical drawings,
 - service manual.
- examination of the representative model in order to establish conformity with the technical file.
- tests and inspections to check compliance with the essential demands of the Lifts Directive, special attention is given to the activation delay and to the fact that the safety gear shall also work at low activation speed.

4. Results

After the examination the safety gear and the technical file were found in accordance with the requirements.

The functional tests passed without remarks and the safety gears activated within the defined distance, also at very low activation speed.

A description of the tests performed is given in "Test report type-examination NL12-400-1002-169-01/05" issued by the Liftinstituut on July 24th 2012.

5. Conditions

On the type-examination certificate the following conditions apply:

- An additional calculation shall be done to check whether the stopping distance of the car is within the limits as required by EN 81-1:1998+A3:2009 art. 9.11.5 and EN 81-2:1998+A3:2009 art. 9.13.5.
For each lift model the calculations shall be checked and approved.
When the braking force "F" of the safety gear is not directly provided, for calculations it can be taken as 16x the adjusted mass, $F=16(P+Q)$, Car mass "P" and nominal load "Q" in [kg], "F" in [N].
- For application in down direction, all application conditions and limits as mentioned in the certificate AFV 289/2 shall be respected.

- For application in upward direction, all application conditions and limits as mentioned in the certificate ABV 289/2 shall be respected


6. Conclusions

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

The type-examination certificate is only valid for products which are in conformity with the same specifications as the type certified product. Products deviating of these specifications need additional examination by Liftinstituut B.V. in order to determine whether a new type-examination certificate is necessary. Additional examination shall be requested by the certificate holder.

The type-examination certificate is issued based on the requirements that are valid at the date of issue. The manufacturer shall request from Liftinstituut B.V. the review of the validity of the type examination certificate, taking into account the changes in the requirements or changes in the state of the art of the product, every 5 years.

Prepared by:



A. van den Burg
Senior Specialist
Liftinstituut B.V.

Certification decision by:



Annexes

Annex 1 : Activation distance of EB 75 GS safety gear (maximum distance travelled between start of activation until full force in both up direction and down direction if mounted upside down)

