liftinstituut
SINCE 1933

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17065
PRODUCT CERTIFICATION BODY

Certificate of Compliance Report

Report supporting to Certificate of Compliance no.	:	NA23-0842-1004-045-01
Date of issue of original certificate	:	November 17, 2023
No. and date of revision	:	-
Certificate applies to	:	Component
Assessment basis	:	ASME A17.1-2019/CSA B44:19
Project no.	:	P210041

1. General Specifications

Description of the product	:	Emergency brake as ASD and UCMP
Trademark	:	HydraSafe
Model / Type no.	:	HydraSafe Brake
Name and address of the manufacturer	:	HydraSafe Brake 4553 W. Lexington Street Chicago IL 60624 USA
Laboratory	:	-
Data of examination	:	November 2023
Examination performed by	:	E. Verkaik

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2. Component Description

The HydraSafe Brake is an emergency brake which will be mounted on a car of a traction elevator, used as ascending safety device and unintended movement protection. The brake has the Caliper Body and power unit combined in a frame, and the brake will make use of the guide rails of the elevator to stop the car in an emergency situation.

Maximum Ratings

Power Supply:	10A,120VAC, 1PH, 60 HZ
HAWE contact rating:	10A@ 300VAC
All other contact ratings:	7A@120VAC, 7A@240VAC
HydraSafe set time:	2 seconds
Car Rated Load:	3500lbs
Rated Mass; car weight, car capacity, counterweight, comps and cables:	20,860 lbs.
Maximum speed:	1400 FPM
Door Zone:	6”

Minimum Ratings

Car Rated Load:	700lbs
Car and Counterweight Mass:	2500lbs
Rated speed:	35FPM

See annex 1 for a general overview of the product.

3. Examinations and Tests

To prove the compliance with the requirements referred to on page 1, applicable examinations and test are carried out.
The examination covered a check whether compliance with the ASME A17.1-2019 / CSA B44-19 is met.

The examination included:

- Examination of the technical file (See annex 2).
- Check of performed calculations according to ASME A17.1 / CSA B44 taking into account the safety factors 2.19.4
- Examination of the representative model in order to establish conformity with the technical file.
- Inspections and tests to check compliance with the requirements.

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These tests have been performed both with HydraSafe Brake:

- UCMP downwards with 125% of nominal load (5x)
- ACOP upwards with empty car (5x)

The deceleration and travel distance from every test have been recorded with a PMT measuring device. Afterwards the maximum reached speed, brake distance, maximum and average deceleration are derived from the measurement results.

4. Results

After the examination of the CCD, the risk assessment, test reports etc., the technical documentation was found in accordance with the requirements.

5. Conditions

Additional to 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:

General;

- The installer of the lift needs to define and verify the final complete ACOP and/or UCMP solution, taken into account the key-parameters of the Emergency Brake and the detection means.
- Mounting, adjusting, testing, reset and maintenance of the Emergency Brake must be done according the supplied instructions.
- This certificate is only valid for the HydraSafe Brake itself, the certification of the whole ACOP and/or UCMP system is the responsibility of the manufacturer.
- The HydraSafe Brake shall be provided with a marking plate complying with 8.13.3 indicating the range of total masses (car with attachments and its load) for which it is permitted to be used, the range of speeds at which it is set to operate.
- See Chapter 2 for technical specifications and limits of use.
- Certification of equipment according CSA B44.1 / ASME A17.5 was not part of this assignment and is the responsibility of the manufacturer.
- This certificate is only valid for components which are cCSAus certified according CSA B44.1 / ASME A17.5.

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Ascending Car Overspeed Protection (ACOP)

- According 2.19.1 Ascending Car Overspeed Protection, a speed monitoring element shall detect an ascending car overspeed condition at a speed not greater than 10% higher than the speed at which the car governor is set to trip and shall cause the Emergency Brake to activate within the limits of the specifications (see section 2).
- When the Emergency Brake is engaged, the speed monitoring element shall operate an electric device.
- Once actuated by overspeed, the overspeed detection means shall remain actuated until it is manually reset, and the car shall not start or run unless the detection means is reset.
- When a fault specified in 2.19.1.2 is detected, the car shall stop at or before the next landing for which a demand was registered, and shall not be permitted to restart.

Unintended Car Movement Protection (UCMP)

- According 2.19.2 Unintended Car Movement Protection there shall be means (see 2.26.2.30) that shall detect unintended car movement in either direction away from the landing with the hoistway door not in the locked position and the car door or gate not in the closed position.
- Detection of unintended car movement, shall cause the HydraSafe Brake to activate within the limits of the specifications (see section 2).
- The stopped position of the car shall be limited in both directions, to a maximum of 1220 mm (48 in.) as measured from the landing sill to the car sill.
- The car shall not start or run unless the HydraSafe Plus is reset.
- When a fault specified in 2.19.2.2 is detected, the car shall stop at or before the next landing for which a demand was registered, and shall not be permitted to restart.
- When the HydraSafe Brake has been activated, its release shall require the intervention of a competent person.
- The installer/manufacturer of the lift needs to insure the test-speed and relevant parameters for the final acceptance test comply with local code requirements.

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6. Conclusions

Based upon the results of the compliance examination, Liftinstituut B.V. issues a Certificate of Compliance.

The Certificate of Compliance is only valid for components which are in conformity with the same specifications as the certified components. Components deviating of these specifications need additional examination by Liftinstituut in order to determine whether a new Certificate of Compliance is necessary. Additional examination shall be requested by the certificate owner.

The Certificate of Compliance is issued based on the requirements that are valid at the date of issue. Liftinstituut reserves all rights regarding the validity of the certificate with respect to changes in the requirements or changes in the state of the art of the component.

7. Surveillance

Before the component subject to this certificate of compliance are physically supplied to the market, the client shall apply immediately for Surveillance assessment by Liftinstituut to be established.

Surveillance assessments shall be established yearly to maintain the validity of this certificate of compliance. For further information see regulation 2.0.1 ‘Regulations for product certification’ on www.liftinstituut.com.

Prepared by:

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Product specialist Certification

Certification decision by:

W.G. Kasteleijn
Product Manager Certification

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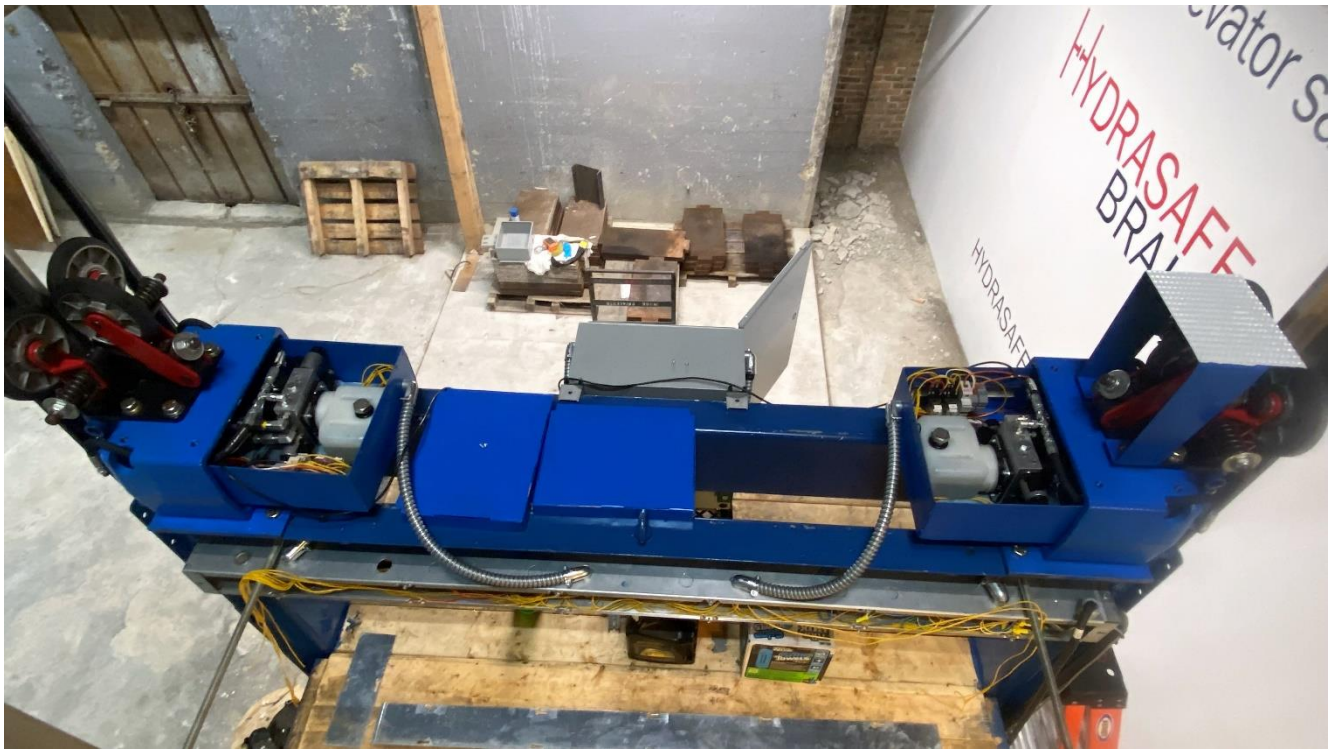
Annexes

Annex 1. General overview of the product



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

Title	Document number	Date
HydraSafe Brake Instruction Manual	HydraSafe Brake	-
Installation	HydraSafe Brake Rev-7	11-2-23
HydraSafe Brake Maintenance Procedures	HydraSafe Brake Rev=7	11-2-23
Operation Sequence HydraSafe Plus	-	-

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
-	November 17, 2023	Original

--- End of report ---

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