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SINCE 1933

TYPE EXAMINATION CERTIFICATE

FOR LIFTCOMPONENTS

Issued by Liftinstituut B.V.

Certificate no.	:	NL16-400-1002-061-20 Revision no.: 2
Description of the product	:	Automatic horizontal sliding landing and car doors
Trademark	:	Merih Asansör
Type no.	:	H-MAX series
Name and address of the manufacturer	:	Merih Asansör Sanayi ve Ticaret A.Ş. Başkent OSB, Recep Tayyip Erdoğan Bulvarı, No:8, Temelli Sincan, Ankara, Türkiye
Name and address of the certificate holder	:	Merih Asansör Sanayi ve Ticaret A.Ş. Başkent OSB, Recep Tayyip Erdoğan Bulvarı, No:8, Temelli Sincan, Ankara, Türkiye
Certificate issued on the following requirements	:	Lifts Directive 2014/33/EU
Certificate based on the following standard	:	Parts of : EN 81-20:2014, EN 81-50:2014 ; EN 81-20:2020, EN 81-50:2020
Test laboratory	:	None
Date and number of the laboratory report	:	None
Date of type examination	:	September – November 2016, December 2021
Additional document with this certificate	:	Report belonging to the type examination certificate no.: NL16-400-1002-061-20 rev.2
Additional remarks	:	This revision replaces certificate NL16-400-1002-061-20 rev.1 of 19-01-2017 See chapter 5 of the report belonging to this Type examination certificate.
Conclusion	:	The product meets the requirements / standards referred to in this certificate taking into account any additional remarks mentioned above.

Amsterdam

Date : 17-12-2021
Valid until : 17-12-2026

ing A.J. van Ommen
International Business Manager

Certification decision by

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Report type-examination

Report belonging to type-examination certificate number	:	NL16-400-1002-061-20
Date of issue of original certificate	:	November 22, 2016
Certificate applies to	:	Component
Revision number / date	:	2, 17-12-2021
Requirements	:	Standards: EN81-20:2014 clause 5.3.5, EN81-50:2014 clause 5.14. EN81-20:2020 clause 5.3.5, EN81-50:2020 clause 5.14.
Project number	:	P160356-01, P210455

1. General specifications

Description of the product	:	Automatic horizontal sliding landing and car doors
Trademark	:	Merih
Type no.	:	H-MAX series
Name and address of the manufacturer	:	Merih Asansör Sanayi ve Ticaret A.Ş. Başkent OSB, Recep Tayyip Erdoğan Bulvarı, No:8, Temelli, Sincan, Ankara, Türkiye
Address of examined component	:	Merih Asansör, Ankara, Turkey
Data of examination	:	September – November 2016, December 2021
Examination performed by	:	W. Visser, E. Bakker, T. Goktas

2. Description component

The Merih H-MAX is a horizontal sliding automatic landing or car door. It can be a central opening door with 4 or 6 panels.
Width of the door opening can be between 1400 – 2600 mm.

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The maximum height of the telescopic doors and the central opening doors is 3000 mm. Width of a single door panel is between 276 – 473 mm. All panels have 1 vertical re-inforcement strip (see annex 1e). The thickness of the stainless steel panels is 1,2 mm.

The guiding of each panel is achieved by a guiding rail and guiding rollers at the top and at the bottom by two guide shoes in an aluminum or steel landing sill.
Four separate steel retainers are adjacent to these guiding rollers at the top. Two fixed ones at the top of the upper guide rail and 2 adjustable ones at the bottom of the upper guide rail, located on each panel carrier. At the bottom, in the sill, two separate steel retainers are implemented in the guide shoes. In case of damages or wear out of the plastic guiding components, these metal retainers will still keep the door panels in its guiding profiles.
Each door panel is attached to its panel carrier by means of fail safe panel hanger bolts.

The doors are self closing and self locking due to spring force while the closing force and energy is within limits.
The door locking device consists of two parts, the locking housing and the locking hook. The locking takes place by a hook mounted on the door panel. The housing is mounted on the door rail.

The central opening doors have a lock including locking contact on each side.
This locking contact is also used as door contact that guards the closed position of all door panels on that side. Due to mechanical linking all door panels are closed when the door contact is closed.
The Merih KLT005 locking device is used on all H-MAX doors.

Door model	**Type**
H-MAX, C4P	4 panels central opening
H-MAX, C6P	6 panels central opening

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, based on the harmonized product standards EN81-20 and EN81-50. Since there were no changes of the doors, the tests were not performed during this examination.

The examination included:
- Examination of the technical file (See annex 2):

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- Examination of the representative model in order to establish conformity with the technical file.
- Performing Soft Pendulum tests according to clause 5.3.5 of EN81-20 and clause 5.14 of EN81-50. The test has been performed on a H-MAX door with panels of 473 mm. These panels are considered the weakest ones for H-MAX doors and so comprise the biggest unsupported area.
- Additional inspections and mechanical tests to check compliance with the other requirements as stated in clause 5.3.5 of EN81-20.

For the soft pendulum shock test (see Annex 1f: test setup), the rig falling height was determined at 800 mm to achieve the required equivalent impact energy. The striking point at the landing side was determined at the middle of this panel located at 1,0 m ± 0,10 m height (according to table 5 EN 81-20 :2014).

The fast panel of the door was subjected to a soft pendulum shock test. The door panels were fixed in the normal guides in a test frame. 3 tests were performed:

1- With normal guiding of the panel
2- Without normal guiding of the panel (only retainers)
3- With a missing hanger bolt between panel and panel carrier

4. Results

After the final examination the product and the technical file were found in accordance with the requirements. The functional tests passed without remarks.
All mechanical tests passed without remarks and did not lead to permanent deformations or loss of stability.
After the soft pendulum tests the conditions of clause 5.14.4 of EN81-50 are met.

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:

General

- The following max door dimensions for H-MAX doors can be used
  - Door opening width 1400 – 2600 mm
  - Door height 3000 mm
- Maximum panel width is 473 mm.
- Minimum panel thickness 1,2 mm.

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- Each door panel is reinforced in the middle (annex 1e).
- The H-MAX door sill shall withstand at any time all forces related to this soft pendulum shock test.
- Each door panel is equipped with two x two retainers at the top and two retainers at the bottom as a guard in the landing sill.
- The maintenance and installation instructions shall be provided with the doors.

6. Conclusions

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

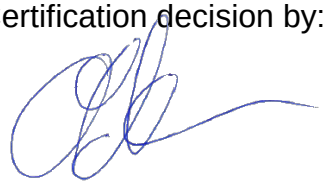
The type-examination certificate is only valid for products which are in conformity with the same specifications as the type certified product. The type-examination certificate is issued based on the requirements that are valid at the date of issue.

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 type-examination certificate.

Prepared by:

Edwin Bakker
Product specialist Certification

Certification decision by:



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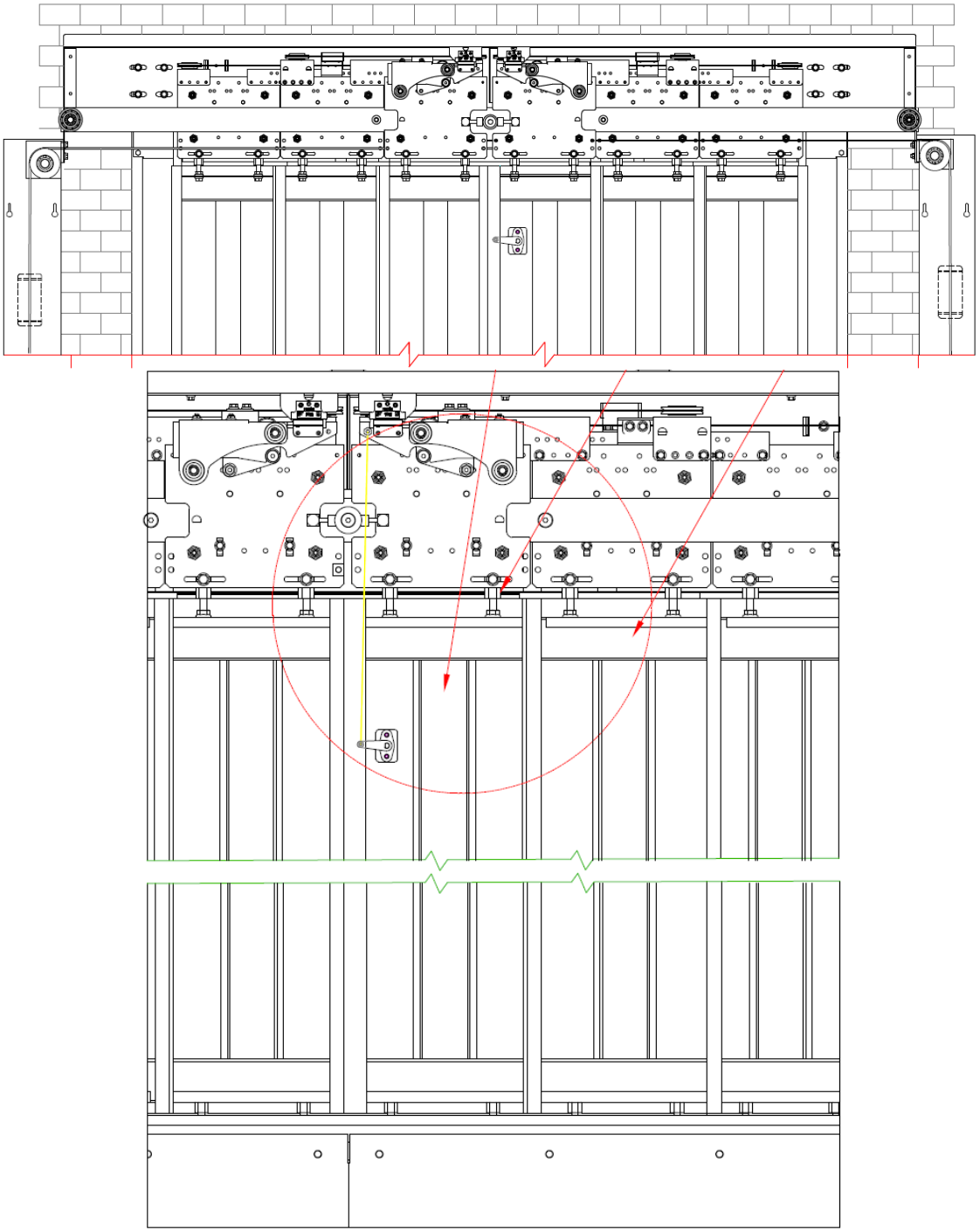
Annexes

Annex 1a : H-MAX door



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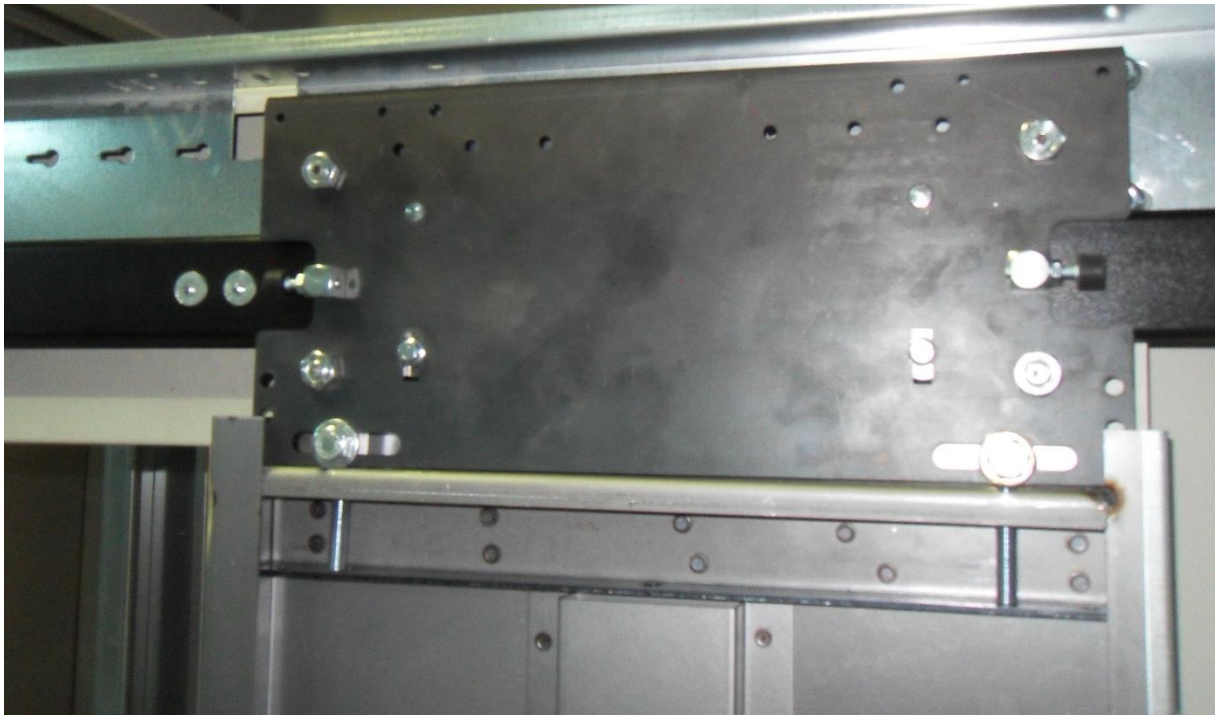
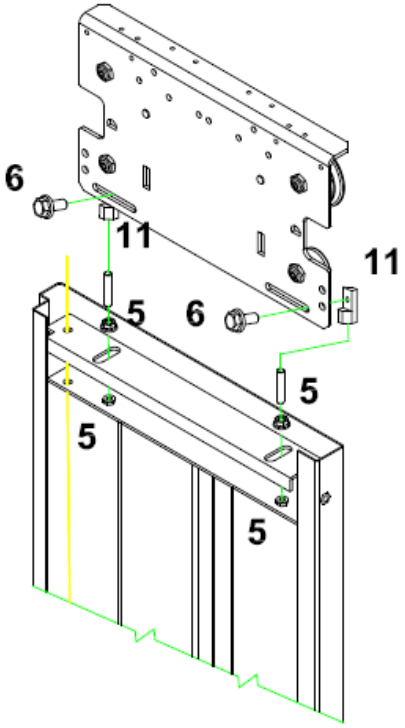
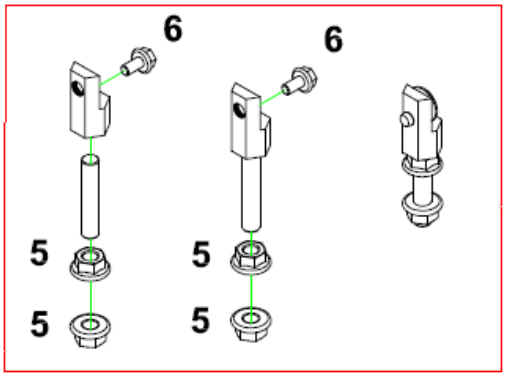
Annex 1b : Hangers







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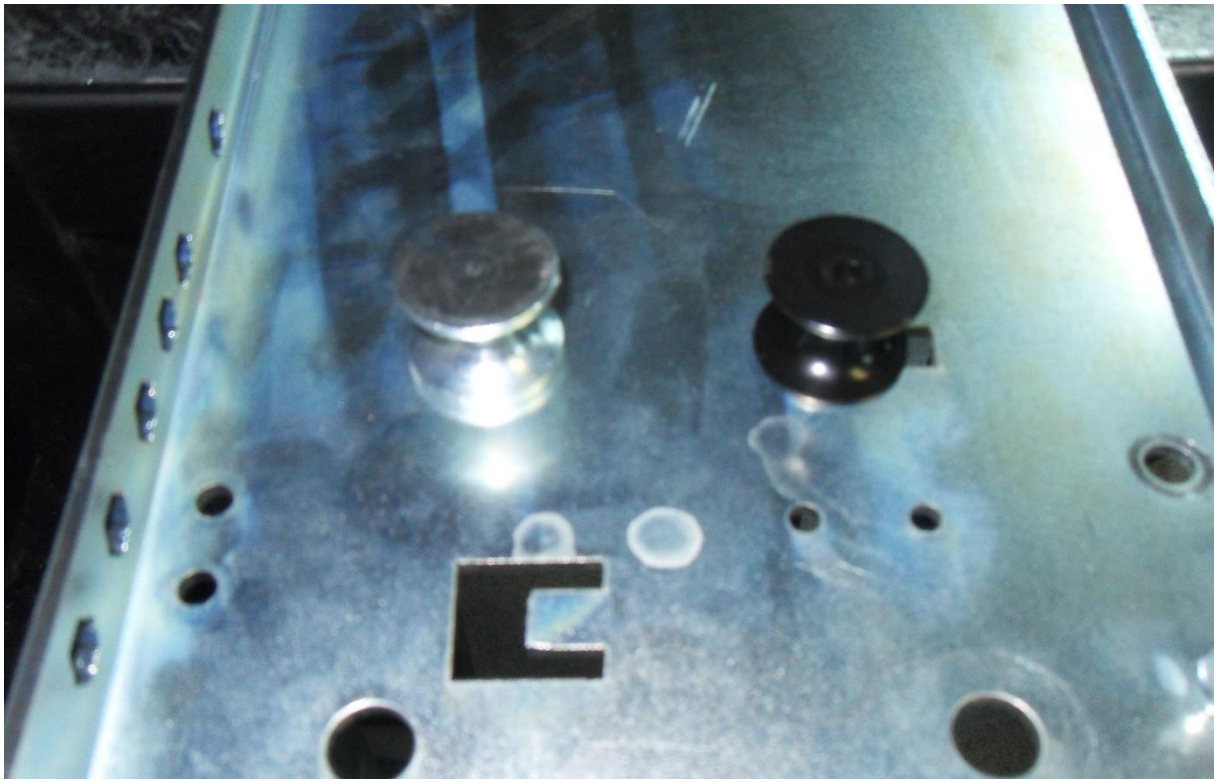
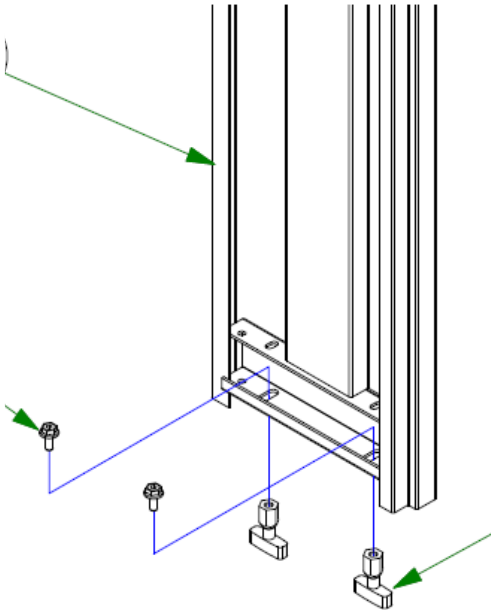
Annex 1c : Top retainers



Annex 1d : Sill and bottom retainers



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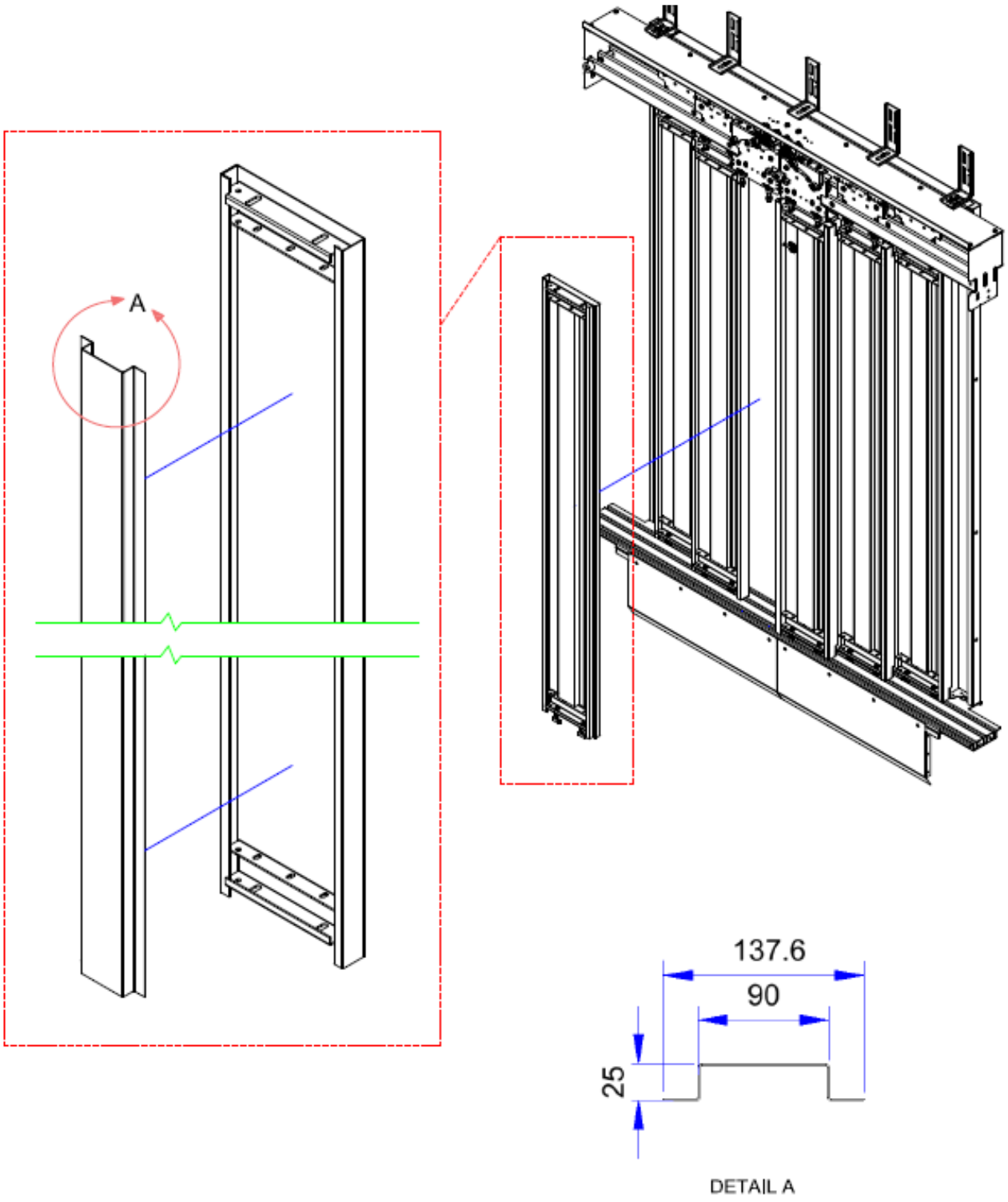
Annex 1e : Re-inforcement of door panels



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Annex 1f : Test setup soft pendulum shock test

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

Title	Document number	Date
Drawings, manuals H-MAX	H-MAX rev.1	07-11-2017

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**
-	22-11-2016	Original
1	19-01-2017	Minor textual correction
2	17-12-2021	No changes; Renewal of the certificate with another 5 years Update to EN 81-20:2020 and EN 81-50:2020

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