



# CERTIFICATE

The certification body for lifts and cranes of TÜV SÜD Industrie Service GmbH Westendstraße 199 80686 München - Deutschland

entitles

Truss Aluminium Factory a.s. **Hodolany 1226** 77900 Olomouc - Czech Republic

to identify the product specified below with the test mark shown here.



Product:

**Welded Aluminium Truss** 

Type:

HT34 (TIG)

This certificate is based on test report, order no. 3211133-17.

This certificate is valid until 2025-06-21.

Certificate registration no. 20.06.9812.018.

Filderstadt, 2020-06-22

Achim Janocha Certification Body "lifts and cranes"





# Description of the object of examination

#### 1.1 Intended use

The Aluminium Truss serves exclusively the attachment of loads for load application and load distribution in the superior structure. The Aluminium truss is used as a single span beam.

#### 1.2 Technical data

The stress analysis and the design drawing furnish proof for welded aluminium trusses with 4-chord profile.

The trusses are dimensioned as single-span-girders with supports at the ends of the longitudinal circular tubes ( $\emptyset$  50.0 / 3.0 mm).

All diagonals and bracings made of tubes  $\emptyset$  20.0 / 2.0 mm are connected to the chord tubes by circumferential fillet welds (a = 3,0 mm).

Single truss elements can be connected by conical couplers with steel bolts.

Further information can be taken from the design description of the stress analysis and from the design drawings.

Death weight	7,40 kg / m
Single length of trusses	From 0.25m to 5.0m
Max length – connected	12m
Center distance	240mm x 240mm

## 2 Underlying documentation

index	description	pages	version
U1	Trussing operation and installation manual	1 – 16	Version 2 2020-01-07
U2	Risk Assessment	1-3	05.12.2019
U3	Statical calculation – truss structure system HT34	1 - 31	05 / 2014
U4	Drawings	diverse	diverse

## 3 Process of examination

The examination was carried out according to the directive 2006/42/EC and the standards outlined in the basis of examination.



## 3.1 Design approval – Examine of the documentation

- 3.1.1 Examine of operating manual U1
- 3.1.2 Examine of risk assessment | U2 |
- 3.1.3 Examine of calculation | U3 |
   The static calculation was checked according to the DIN EN 1999 -1-1 (03-2014).
- 3.2 Acceptance test

The acceptance test consisted of a build, function and load test.

3.2.1 Build test

The test sample was concurrent with the supplied documentation.

3.2.2 Load test

The load test was carried out according to the directive 2006/42/EC with 1.5 times the work load limit. Even movements were tested with this load.

## 4 Details of the acceptance tests

- **4.1** Date of the acceptance test 2020-02-25 & 26
- 4.2 Location of the acceptance test
  TAF Truss Aluminium Factory a.s.
  Hodolany 1226
  77900 Olomouc
  Czech Republic
- 4.3 Participants

Mr. Pavel Zerotinsky

Mr. Petr Haflant

Mr. Ondra Stodala

Mr. Matthias Wörle

- TAF, Technical manager

- TAF, Sales manager

- TAF, Technical manager

- TAF, Technical manager

- TÜV SÜD Industrie Service

4.4 Used measuring devices

 P1
 Measuring tape
 QS 08 M0505

 P2
 Caliper
 QS 08 M0504

 P3
 Laser pointer
 QS-004 05060

### 5 Findings

5.1 Examination of the documents

The documents |U01| to |U04| for the object of examination meet the requirements of the basis of examination with respect to content and amount of information.



- 5.2 Comparison of the test sample to the drawings of the underlying documentation A pass-point like comparison has shown that the test sample is confirming to the drawings of the underlying documentation | U3 |.
- 5.3 Acceptance test

The nominal loads given in \ \| U3 \| were applied and the deflections were measured. The nominal loads given in \ \| U3 \| were multiplied with the load factor 1.50 according second order theory calculation for buckling and applied.

6 Examination result

The examination showed that if used as intended, the requirements of the basis of examination are met.

- 7 Conditions
- 7.1 Operating manual
- 7.1.1 One copy of the operating manual |U1| must be kept at the site of operation.
- 7.1.2 All conditions of the operating manual |U1| must be strictly adhered by the user of the aluminium truss. Especially the following:
- 7.1.2.1 The user of the aluminium truss must adhere the safety instructions of the operating manual |U1|.
- 7.1.3 Attached loads must not exceed the loads given in the load tables in |U3| for the load level "EL" = elastic material behaviour. The load level "PL" = plastic material behaviour is not permitted.
- 7.1.4 The manufacturer has to provide the Structural Report | U3 | to the customers.
- 8 Notes
- 8.1 The test results relate to the tested Aluminium truss (HT34 (TIG)) only and the pertaining type examination.
- This examination is based on the state of the art which is documented by the relevant, at the time of issue valid harmonized standards. In case of changes in the state of the art, expressed especially in the publication of new or changes in harmonized standards, a new review must be performed.

**Technical Approval granted** 

Daniel Steinbauer

Expert

Matthias Wörle