DNV·GL

Certificate No:
TAS000022H

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Seats

with type designation(s)
Catamaran Seat 1

Issued to
DELDIT 1
Split, Croatia

is found to comply with
International Code of Safety for High-Speed Craft, 2000 - Annex 10

Application :

Passenger seat for design level 1: gcoll up to 3g

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2019-07-31**
This Certificate is valid until **2024-07-30**.
DNV GL local station: **Rijeka**

Approval Engineer: **Espen Kultorp**

for **DNV GL**

Christine Adal
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Passenger Seats of "*Catamaran Seat 1*"-design mounted on legs/rails fixed to deck of craft.
Number of legs depends on number of Seats and actual level of collision design acceleration.

Type designation: "*Catamaran Seat 1, type 1".*

Basic construction consists of: Back/Bottom, Beam, Legs and Floor-Rails.
Basic materials are aluminium-profiles/plate/casting and steel bolts/details.
Upholstery consists of foams/fabrics composed of different types and quality.

Application/Limitation

The approval covers *strength and mounting* of Seats according '2000 HSC Code':
- *Design level 1* as specified for collision acceleration/g_{coll} up to 3g

Seats are approved for the following conditions *relative to the craft:*
- *Forward or aftward* facing for g_{coll} up to 3g:
  - All types/models without belt

- *Transverse* facing for g_{coll} up to 3g:
  - All types/models without belt

Seats are to be mounted to deck as tested (ref. documentation overleaf):
- Fixation by M8/M10 bolts spaced according drwg.no.01-A

Deck structure of craft is *not* part of this approval, but is assumed separately approved.

Seat/Lap-belts are *not* required to be installed for *Design Level 1*.

Other mounting and g_{coll} may be accepted based on separate approval case by case.

Approval conditions

Type Approval is issued based on Class Programme DNVGL-CP-0140 "Passenger and crew seats".
The approval covers requirements to Seats in Ch.4.4, Ch.4.5 and Appendix 10 of the "International Code of Safety for High-Speed Craft, 2000", as referred to in DNV GL Rules for Classification: High Speed and Light Craft, Pt.3 Ch.7 at date of issue.

The approval covers the strength of Seat and mounting with respect to collision only.
Note: Restricted use of combustible materials according to 2000 HSC Code 7.4.3 is not part of this approval.

Any Seat/Lap-belts are assumed separately approved according to relevant standard.

Any changes which may influence the strength or safety of the Seat, shall be reported for evaluating the need for revision of the approval.

Any additional equipment may be accepted based on documentation and/or survey prior to installation, showing that strength/safety will not be influenced.

Type Approval documentation

Seats/mounting is covered by the following main drawings/documents, reference:

Materials used are specified/referred to in the drawings/documentation above.

Tests carried out

Static test according to '2000 HSC Code' Annex 10 section 2 was undertaken by University of Zagreb – Faculty of Forestry, reference:
- Report 008/19 dated 24.04.2019

Note: Fire test of combustible materials in accordance with 2000 HSC Code 7.4.3 is not part of this approval.

Marking of product

Seats are to be marked with type/model-designation(s) and name of manufacturer.

Note: MED-marking (acc. to Maritime Equipment Directives 2014/90/EC) does not apply for strength of Seats, but applies to fire safety of combustible materials, which are not part of this approval.

Certificate retention survey

DNV GL may perform Certification Retention Surveys at any time during the validity period of this certificate. The arrangement is to be in accordance with scope described in DNVGL-CP-0338.

END OF CERTIFICATE