



Certificate No:
TAS0000319

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Seats

with type designation(s)
400 Series Tapered Tub Seat – Models 404 and 406

Issued to
Beurteaux Australia
HENDERSON, WESTERN AUSTRALIA, Australia

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.

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-07-05**

This Certificate is valid until **2026-07-04**.

for **DNV**

DNV local station: **Australia FIS/CMC**

Approval Engineer: **Per Annar Sandaune**

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Thomas Revheim
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

Passenger seats mounted individually on 4 feet fixed to the deck of the craft.

Type/model designation:

- 400 Series Tapered Tub Seat – Models 404 and 406

The basic construction consists of a welded frame with tapered tub shaped plating around the sides and back of the seats. Basic materials are aluminium profiles/plates and steel bolts/details.

Upholstery consists of foams and fabrics composed of different types and quality.

Application/Limitation

The type approval covers strength and mounting of seats according to the 2000 HSC Code:

- Design level 1 as specified for collision acceleration/ g_{coll} up to 3g

The seats are approved for the following conditions relative to the craft:

- Forward/aft facing
- Sideways facing
- Diagonally facing (± 45 degrees to forward and aft longitudinal craft direction)

The seats are to be mounted to deck as tested (see documentation overleaf):

- Fixation by 8 off HEX HD 12-11x25 bolts for the foot plate assemblies (2 on each foot plate). Bolts are austenitic stainless steel.

The deck structure of craft is not part of this approval.

Seat/lap belts are not required to be installed for Design level 1.

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

Approval conditions

The 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 Sec. 9 of DNVGL-SI-0364 - "Statutory Interpretations – SOLAS interpretations" 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 Ch. 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 seats shall be reported for evaluation of the possible need for revision of the approval.

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

Type Approval documentation

Tests carried out

Static tests according to 2000 HSC Code, Annex 10, Section 2 was undertaken by Beurteaux and verified by DNV, reference:

- Type test 5109 - Tub Seat - 404 - Static Tests - IMO HSC Annex 10, TR 5109 Rev. A, dated 2020-07-10.
- Static test docs - IMO HSC Annex 10, TD 5109 -2.2.1-2.2.6, dated 2020-07-10.
- FEA Tub Seat 400 Series - 45° Test Report, Rev. 0, dated 2021-04-06.

Mounting of the seats in ± 45 degrees to forward and aft longitudinal craft direction is approved based on FE analyses and comparisons with

Note: Fire test of combustible materials in accordance with the 2000 HSC Code Ch. 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 (according to Maritime Equipment Directives 96/98/EC) does not apply for strength of seats, but applies to fire safety of combustible materials, which is not part of this approval.



Job Id: **262.1-033818-1**
Certificate No: **TAS0000319**

Periodical assessment

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

END OF CERTIFICATE