DNV·GL

Certificate No:
TAD0000109

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Accumulators

with type designation(s)
Piston Style Stainless Steel Accumulator, Model No. 075A75-20-C895

Issued to
Tobul Accumulator Incorporated
Bamberg, SC, USA

is found to comply with
DNVGL-OS-E101 – Drilling facilities, Edition January 2018
DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2017

Application :

See Page 2

This Type Approval is 2 pages long and replaces D-5982, as issued on 2014-12-15.
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Houston** on **2018-09-13**
This Certificate is valid until **2023-09-12**.
DNV GL local station: **Houston, Approval CMC**

Approval Engineer: **M. Kevin Mandeville Jr.**

for **DNV GL**

Meindert van Mierlo
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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Job Id: **262.1-017425-3**
Certificate No: **TAD0000109**

The following design codes and standards were used as reference:

ASME *Boiler and Pressure Vessel Code*, Section VIII, Division 1, 2017 Edition
ASME *Boiler and Pressure Vessel Code*, Section II, 2017 Edition
ASME B1.9, *Buttress Inch Screw Thread*, 1985 Ed.
ASME B1.1, *Unified Inch Screw Threads*, 1989 Ed.

Product description

Accumulator, 2.5 gallon capacity, piston style body, with stainless steel construction

Application/Limitation

Design Parameter	Value	Equivalent
Max Internal Working Pressure	7500 psi	517 bar
Hydrostatic Test Pressure	11250 psi	776 bar
Max External Pressure†	4,921 psi	339 bar
Min Design Temperature	-20 °F	-29°C
Max Design Temperature	200 °F	93°C
Corrosion Allowance	0 in	0 mm

†Note: Accumulator design is not rated for external gauge pressure. This does not, however, prevent subsea applications.

Type Approval documentation

- Drawings

Note: Other part numbers or updated revisions may be acceptable under this Certificate provided critical aspects of the design remain the same. Changes shall be documented and approved (via Engineering Change Notice or similar) by the Manufacturer's Engineering and/or Quality department as appropriate. DNV GL's local surveyor shall verify the change before issuance of Product Certificate.

- Calculations
- Materials

Tests carried out

The type test report requirement is waived for this TAC renewal.

Marking of product

For traceability, the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's Name or Trademark
3. Additional marking at the manufacturer's discretion

Certificate Retention Survey

For retention of the Type Approval Certificate, a DNV GL surveyor shall perform a retention survey after 2 years and 3.5 years, in accordance with the DNV GL Class Programme For Type Approval, DNVGL-CP-0338.

Other conditions/comments

- Cylinder castings are to be processed per ASME BPVC Section VIII, Division 1, Appendix 7 and 8 for a quality factor of 90%.
- Manufacturer changed the number from 075055A75-20-SS to 075A75-20-C895 prior to this TAC Renewal.
- DNV GL Ref. Project A0566152

END OF CERTIFICATE