DNV·GL

Certificate No:
TAD000018T

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Accumulators

with type designation(s)
033A75-4-B646, Accumulator, Piston Style, 1/2 Gallon Capacity, Stainless Steel Body

Issued to
Tobul Accumulator Incorporated
Houston, TX, 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 2018

Application :

See Page 2

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.
This Type Approval Certificate is 3 pages long and replaces D-5472.

This Type Approval Certificate is three pages long and replaces D-5472 as issued 2014-02-11.
Issued at **Houston** on **2020-01-23**

This Certificate is valid until **2025-01-22**. for **DNV GL**

DNV GL local station: **Houston, Approval CMC**

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

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: **262.1-016988-6**
Certificate No: **TAD000018T**

The following design codes and standards were used as reference:
ASME *Boiler and Pressure Vessel Code*, Section VIII, Division 1, 2019 Edition

Product description
Accumulator, ½ gallon capacity, piston style body, with stainless steel construction

Application/Limitation

Design Parameter	Value	Equivalent
Max Internal Working Pressure	7500 psi	517.1 bar
Max Internal Test Pressure	11250 psi	775.7 bar
Min Design Temperature	-20 °F	- 29 °C
Max Design Temperature	200 °F	93 °C
Corrosion Allowance	0in	0mm

Type Approval documentation

- Drawings
- Calculations
- Materials

Tests carried out
Type Test not required for this renewal of Type Approval Certificate (from D-5472).

Marking of product
For traceability to this Type Approval Certificate the products are as a minimum to be marked as follows:
1. Serial Number
2. Manufacturer's name and trademark
3. Additional marking at manufacturer’s option
4. As required in Paragraph UG-116 of ASME Section VIII Division 1, 2015 Edition

Additional Manufacturing Locations
Tobul Accumulator Inc.
7540 Fairview Street
Houston, TX, 77041

Certificate retention survey

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

Other Comments and Conditions

1. Cylinder castings are to be processed per ASME BPVC Section VIII, Division 1, Appendix 7 and 8 for a quality factor of 90%.
2. DNV GL Ref. Project A0797777.

END OF CERTIFICATE