

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Accumulators

with type designation(s)

Accumulator, Piston Style, 10 Gallon Capacity, Stainless Steel Body

Dwg. No. 093A50-80-9889, Rev. 02

Issued to

Tobul Accumulator

Bamberg SC, United States

is found to comply with

DNVGL-OS-E101 – Drilling plant, Edition July 2015

DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2015

Application :

See Page 2

This Certificate is valid until **2021-06-12**.

Issued at **Houston** on **2016-06-13**

for **DNV GL**

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

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

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Christian Nilsen
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.

Job Id:
Certificate No: **TAD00000BV**

Product description

ASME Boiler and Pressure Vessel Code, Section VIII, Division1, 2015 Edition

Application/Limitation

Accumulator, 10 Gallon capacity, Piston style, Stainless Steel Body

Type Approval documentation

<u>Design Parameter</u>	<u>Value</u>	<u>Equivalent</u>
Max Internal Working Pressure	5,000 psi	344.7 bar
Max Internal Test Pressure	7,500 psi	517.1 bar
Max External Working Pressure	Not Rated for External Pressure	
Min Design Temperature	-20°F	-29°C
Max Design Temperature	200 °F	93.3°C
Corrosion Allowance	0in	0mm

Tests carried out

Type Test performed on SN: 343991, PN: 093A50-80-9889, on 9 June, 2016, witnessed by DNVGL Surveyor.

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, DNV GL's surveyor shall perform a survey every second year in accordance with DNV GL's Class Programme for Type Approvals, DNVGL-CP-0338.

Other conditions/comments



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- Cylinder Castings are to be machined per ASME BPVC Section VIII, Division 1, UG-24(a)(1), and marked per UG-24(c) for a quality factor of 85%.
- DNV GL Ref. Project No. PP155438.

END OF CERTIFICATE