



Certificate No:
TAD00001E9

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Mud and Cementing Equipment

with type designation(s)
Plug Containers

Issued to

Halliburton Energy Services Inc.
Houston, TX, USA

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2021

DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application :

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

Issued at **Houston** on **2021-11-30**

This Certificate is valid until **2026-11-29**.

for **DNV**

DNV local station: **Certification & Inspection Services**

Approval Engineer: **Bo Cui**

.....
Mark Miser
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

www.dnv.com

Page 1 of 3

Product description

101306151 Rev.C Double Plug Container, Compact, 9-5/8 Inch, with Quick Latch Coupler
101306154 Rev.D Double Plug Container, Compact, 13-3/8 Inch, with Quick Latch Coupler
101295713 Rev.C Plug Container, Compact, 20 Inch, with Quick Latch Coupler
100060455 Rev.C Plug Container, Jet-hed, 9-5/8, Double Plug, Manifold style
100060470 Rev.D Plug Container, Jet-hed, 10-3/4, Double Plug, Manifold style

Application/Limitation

For Pt: 101306151 Rev.C

Max. working pressure: 6,670 psi
Hydrostatic test pressure: 10,000 psi
Min. operating temperature: -4°F
Max. operating temperature: 200°F
Fluids conducted: Oil and gas cementing fluid
Oil and gas well drilling fluid
Salt water and fresh water

For Pt: 101306154 Rev.D

Max. working pressure: 4,700 psi
Hydrostatic test pressure: 7,000 psi
Min. operating temperature: -4°F
Max. operating temperature: 200°F
Fluids conducted: Oil and gas cementing fluid
Oil and gas well drilling fluid
Salt water and fresh water

For Pt: 101295713 Rev.C

Max. working pressure: 2,680 psi
Hydrostatic test pressure: 4,000 psi
Min. operating temperature: -4°F
Max. operating temperature: 200°F
Fluids conducted: Oil and gas cementing fluid
Oil and gas well drilling fluid
Salt water and fresh water

For Pt.: 100060455 Rev.C

Max. working pressure: 6,500 psi
Hydrostatic test pressure: 10,000 psi
Min. operating temperature: -4°F
Max. operating temperature: 200°F
Fluids conducted: Oil and gas cementing fluid
Oil and gas well drilling fluid
Salt water and fresh water

For Pt.: 100060470 Rev.D

Max. working pressure: 10,000 psi
Hydrostatic test pressure: 15,000 psi
Min. operating temperature: -4°F
Max. operating temperature: 200°F
Fluids conducted: Oil and gas cementing fluid
Oil and gas well drilling fluid
Salt water and fresh water

Type Approval documentation

Tests carried out

Tests carried out on PN.101306154/Sample No. 11203869, dated January 20th, 2020 with reference to DNV survey report N1423MFR.

Tests carried out on PN.100060470/Sample No. NSS 3B6, dated March 17th, 2021 with reference to DNV survey report N1424F0E.

Tests carried out on PN.101295713/Sample No.12082425, dated December 7th, 2020 with reference to DNV survey report N141V2J5.

Tests carried out on PN.100060455/Sample No.10064757, dated November. 27th, 2020 with reference to DNV survey report N14251B6.



Job Id: **262.1-035888-1**
Certificate No: **TAD00001E9**

Tests carried out on PN.101306151/Sample No.12036315, dated May. 20th, 2020 with reference to DNV survey report N141RYWR.

Marking of product

For traceability, the following marking is to be carried out on all products:

1. Serial Number
2. Manufacturer's Name or Trademark
3. Additional Marking at the manufacturer's discretion

Periodical assessment

1. For retention of the Type Approval, DNV's surveyor shall perform a retention survey after two years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV Type Approval Scheme DNVGL-CP-0338.
2. This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnvgl.com>.

End of Certificate