Certificate no.:
**TAD00001T8**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**that the Kill and Choke Equipment**

with type designation(s)
**SPOOL, WA, C/K, PNs 18107245-XX1 to -X17**

issued to
## National Oilwell Varco, L.P. - Rig Technologies Division - WLY
**Houston, TX, USA**

is found to comply with

**DNV-OS-E101 – Drilling facilities, Edition July 2024**
**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 when accompanied with a DNV Product Certificate (PC).**

Issued at **Houston** on **2026-02-04**
This Certificate is valid until **2031-02-03**. for **DNV**
DNV local unit: **Certification & Inspection Services**

Approval Engineer: **Mark Miser**

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 USD 300 000.

## Product description
Rigid piping, straight. with end connectors, for use in choke and kill equipment.

## Design codes/standards used as references
API Specification 16C, *Choke & Kill Equipment*, 3rd Edition
API Specification 6A, *Specification for Wellhead and Tree Equipment,* 21st Edition

## Application/Limitation

| **Design Parameter** | **Value** | **(Equivalent)** |
|---|---|---|
| Temperature Rating (API 16C "A,B,P,S,T,U,V,X") | : -20°F to 350°F | (-29°C to -177°C) |
| Rated Working Pressure (API 16C) | : 15,000 psi | (103.5 MPa) |
| Fluid Service Condition (API 16C) | : NACE MR0175-1.5 psia | |
| Equipment Bore Size (API 16C) | : Ø3-1/16 in. | (Ø78mm) |
| API 6A Product Specification Level (Flanged End Connections) | : PSL-3 | |
| API 6A Material Classification (Flanged End Connections) | : DD | |
| System; Equipment (DNV-OS-E101) | : Well normalising – Choke & Kill System; High Pressure Piping | |

## Type Approval documentation

## Tests carried out
1. Design Validation Test Report ER02113 Rev. 01.

## 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. Marking as specified by API 16C.
4. Additional Marking at manufacturer's discretion.

## Periodical assessment
For retention of the Type Approval, DNV's surveyor shall perform periodical assessment after 2 years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV's Class Programme DNV-CP-0338, Section 4.

## Manufactured by:
**National Oilwell Varco, L.P. – Rig Technologies Division – WLY (DNV Houston)**