Certificate No:
TAD00001K4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Kill and Choke Equipment

with type designation(s)
SPC, DEBOOSTER, 4:1, 20M PSI FLANGE MOUNT

Issued to
National Oilwell Varco, L.P.
Cedar Park, TX, USA

is found to comply with
DNV-OS-E101 – Drilling facilities, 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 **2024-05-01**
This Certificate is valid until **2029-04-30**.
DNV local unit: **Certification & Inspection Services**

Approval Engineer: **Marco Romero**

for **DNV**

Sowkarthika Seetharaman
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.

Product description

Units Are Designed to Reduce and Separate Input Pressures from the Output Pressure. The Pressure Reduction is a Ratio of 4.07:1 (e.g. Input = 20,000 Psi, Output = 4914 Psi). The Output Side of the Unit Contains Clean Separation Fluid to Actuate a Sensitive Pressure Measuring Device such as a Bourdon Tube Gauge or Transducer

Application/Limitation

Size	: 2-1/16" 20 M 6BX-152
Maximum Working Pressure	: 20,000 psi
API 6A Temperature Classification	: PX
Maximum Design Temperature	: 350°F
Minimum Design Temperature	: -20°F
Pressure Reduction	: 4.07 to 1 (e.g. Input 20,000 psi, Output 4,914 psi)
API 6A Material Class	: DD
API 6A Product Service Level	: PSL-3
Designation of Systems; Equipment	: Well control equipment; Choke & Kill Equipment

Type Approval documentation

Tests carried out

Design validation and prototype testing carried out under DB 5305 and witnessed by DNV Surveyor.

Marking of product

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

1. Serial No. which relates the equipment to certificates and manufacturing documentation.
2. Manufacturer's name or trademark
3. Additional Marking at Manufacturer's discretion.

Periodical assessment

Periodical assessments for type approvals will be required after two years (+/- 90 days) and after three-and-a-half years (+/- 90 days) in accordance with DNV-CP-0338, Section 4.