

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Choke

with type designation(s)
4-1/16 5K 3.0 Hydraulic Choke
Part No. C3BGGXD05AG3TDD

Issued to

MI Swaco
Florence, Kentucky, USA

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 **2021-10-25**.

Issued at **Houston** on **2016-10-26**

DNV GL local station: **Approval CMC**

Approval Engineer: **Kevin Bui**

for **DNV GL**

Christian Nilsen
Team Lead

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: **262.1-024001-1**
Certificate No: **TAD00000HK**

References

- API Spec 6A, Specification for wellhead and christmas tree equipment, 20th Ed
- API Spec 16C, Specification for Choke and Kill Systems, 2nd Ed
- NACE MR0175, Materials for use in H₂S-containing environments in oil and gas production, 2015
- Project No. PP164614, PO No. 420158, Attn. Michael Janowski

Applications

Choke

Nom Size	4-1/16 in
Max Orifice	3 in
Max Working Pressure	5,000 psi
Max Shell Test Pressure	7,500 psi
Temperature Class	-20 to 350 °F
Material Class	EE-NL (Sour Service)
Product Specification Level	3G
Performance Requirement	6A PR2, 16C

Hydraulic Actuator

Max Working Pressure	1,300 psi
Max Shell Test Pressure	1,950 psi
Temperature Class	-20 to 150 °F
Material Class	AA (General Service)
Performance Requirement	6A PR2, 16C

Type Approval Documentation

- Drawings and Material Specifications:

<u>Title</u>	<u>Drawing No./Rev.</u>	<u>Spec. No./Rev.</u>	<u>Note</u>
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- Notes:

Other part numbers or revisions may be acceptable under this TAC provided critical aspects of the design remain the same. Changes shall be documented/approved by Mfr's Engineering and/or QA. DNV GL Surveyor shall verify the changes before issuance of Product Certificate.

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Calculation Reports

- See Design Package No. 1 for Choke Design Calculations Reports.

Test Reports

- See Test Report No. SwRI 18.18190.01.011 for API 6A PR2/PR1 & API 16C, 3-15K P+X Choke.

Fabrication Procedures

- Procedures related to NDE, welding, testing, marking etc shall be reviewed by DNV GL Surveyor.

Marking of Products

- For traceability, the product shall be marked at least with part number and serial number.

Periodical Assessments

- For retention of TAC, periodical assessments shall be carried out bi-yearly.

Comments

- None.