

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Kill and Choke Equipment

with type designation(s)

Drilling Choke AC MPX 40D 3.06-15M, MNL P/N:M991005829-3NL, HYD P/N: M991005830-3NL

Issued to

**National Oilwell Varco, L.P. - Mission Products - Creekmont
HOUSTON TX, 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 - Ch.2 Sec.7
DRILL(N), July 2015**

Application :

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

Issued at **Houston** on **2017-02-02**

This Certificate is valid until **2022-02-01**.

for **DNV GL**

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

Approval Engineer: **Josephine Huang**

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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: **262.1-025027-1**
Certificate No: **TAD00000M1**

Product description

Drilling Choke AC MPX 40D 3.06-15M, MNL P/N:M991005829-3NL, HYD P/N: M991005830-3NL

References

- API Spec 6A, Specification for Wellhead and Christmas Tree Equipment, 20th Edition
- API Spec 16C, Specification for Choke and Kill Systems, 2nd Edition
- NACE MR0175, Petroleum and Natural Gas Industries - Materials for Use in H₂S-Containing Environments in Oil and Gas Production', 2nd Edition

Application/Limitation

Design Parameter	Valve	Actuator
Maximum Working Pressure	15,000 psi	3,000 psi
Maximum Test Pressure	22,500 psi	4,500 psi
Min Design Temperature	-20° F	-20° F
Max Design Temperature	350° F	160° F
Service	Sour (H ₂ S service)	Standard
API 6A PSL	3	3
API 6A PR	2	2
Material Class	EE-NL	EE-NL

Type Approval documentation

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 shall be in accordance with DNVGL-OS-E101 Ch.2 Sec.6.1.3 and requirements of API 16C.

Periodical assessment

For retention of the Type Approval, DNV's surveyor shall perform a survey every second year in accordance with DNV GL's Class Programme DNVGL-CP-0338, Section 4.

Other conditions/comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV GL's local surveyor
2. DNV GL ref.: Project No. PP176165-01