

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Kill and Choke Equipment**

with type designation(s)
Swivel for choke and kill lines.

Issued to

Sivilingeniør E.J.Wiig AS
OSLO, Norway

is found to comply with
DNVGL-OS-E101 – Drilling facilities, Edition January 2018

Application :

See next page.

Issued at **Høvik** on **2020-05-26**

This Certificate is valid until **2025-05-25**.

for **DNV GL**

DNV GL local station: **Norway Fleet in Service, West**

Approval Engineer: **Ole Osuldsen**

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Per Esvall
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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

High Pressure swivel 6" 3000 Psi with Greyloc hub.

Preference Standards

- API 16C Choke and Kill equipment 2016.
- ASME B31-3 process Piping 2012
- ASME VIII Boiler and pressure vessel Code , Div 2
- ASME VIII Boiler and pressure vessel Code, Div 3
- ASME II Boiler and pressure vessel Code, part D.

Application/Limitation

Product/size;	6"
Pressure class;	3000 psi
Service	Well returns, hydraulic fluid mineral or synthetic oil.
Duty cycle	Continuous
Design temp.	-20 Deg C / +150 Deg
Environment	Marine atmosphere
Connections	Both ends to fixed piping.
Max axial tension	20 kN
Max bending	5,0 KNm
Normal rotation	Unrestricted by swivel design
Max rotation angle	Unlimited
Rotation speed	max 1 rpm.

Application/Limitation

Type Approval documentation

Tests carried out

Test report from Trelleborg Rev 0 Doc number 17354
Qualification test for 6" Swivel, Signed DNVGL O Tvilde Doc no;17352 rev 0.

Other Conditions and comments

- Each product is to be surveyed during fabrication in accordance with the requirements for equipment Category I, as defined in DNVGL-OS-E101, Ch 3 , Sec 3, followed by a product certificate. Fabrication records are to be maintained in accordance with DNVGL-OS-E101, Ch 3, Sec 3.2. If the installation is DNV Classed, then this shall be a product certificate.
- Charpy impact testing to be performed at or below design temperature according to DNVGL-OS-E101, Ch 2, Sec 2 (2).

Marking of product

For traceability the following minimum amount of marking is to be carried out on each product;

- Manufacturers name and address
- Part no.
- Serial number
- Swivel size
- Pressure rating
- Temperature rating.

Documentation to be accompanied with each product/delivery.

- DNVGL`s product certificate if delivered to a vessel with DNVGL Drill or Drill(N) notation
- Maintenance/use manual

Certificate retention survey

For retention of this type approval , DNVGL`s representative may carry out product audits biennially.



Job Id: **262.1-033760-1**
Certificate No: **TAD00001AF**