DNV·GL

Certificate No:
TAD0000129

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Pipe Fitting

with type designation(s)
2 1/16" Hydraulic Hose Swivel with API 17D , type 17SS table 7 5K flanges.

Issued to
Sivilingeniør E.J.Wiig AS
OSLO, Norway

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

Application :

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

Issued at **Høvik** on **2019-03-04**
This Certificate is valid until **2024-03-04**.
DNV GL local station: **Haugesund**

Approval Engineer: **Ole Osuldsen**

for **DNV GL**

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.

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Product description

Reference Standards

- API 6A Specification for Wellhead and Christmas tree Equipment 2009.
- ASME B31-3 Process Piping 2006.
- API 17D May 2018.
- ASME II Boiler and Pressure Vessel Code, Part D 2017.
- ASME VIII Boiler and Pressure Vessel Code, Division 2 2015.

Product description

- Hydraulic Hose Swivel, Size 2'' 1/16 with 5K Body Working Pressure and 5K API 17D BX Flanges

Application/Limitation

The approval is valid for the fields of application and operational limitations as follows:

Product/Size	**Hydraulic Hose Swivel** **2 1/16" 5k API Spec 17D** **Type 17 SS (Table 7) BX 152** **Flange**
Pressure class	5000 psi / 345 bar
Design Temperature	-20^{0}C to +100^{0}C (API rating B)
Max axial tension	20 kN @ 5.000 psi
Max bending moment	2,0 kNm
Rotation speed	10 rpm
Rotational limitation	Unlimited, normally within +/-5^0
Service	Mineral oil, synthetic oil
Environment	Offshore, submerged to 30 m water depth

Type Approval documentation
Other Conditions and comments

- Each product is to be surveyed during fabrication in accordance with the requirements for equipment of Category I as defined in DNVGL's Offshore Standard DNVGL-OS-E101 Drilling facilities, Ch.3, Sec.3, followed by issuance of a Product Certificate. Fabrication records are to be maintained in accordance with DNVGL-OS-E101, Ch.3, sec. 3.2. If the intended installation is DNV classed, then this shall be a DNV 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:

- Manufacturer's name and trademark
- VL-TAD0000129
- Serial Number
- Swivel size
- Pressure rating
- Temperature rating

Documentation to be accompanied with each product/delivery

- DNVGL Product Certificate if delivered to a vessel with DNVGL DRILL or DRILL(N) notation
- Maintenance/ User Manual

Certificate retention survey

For retention of this Type Approval, DNVGL AS' representative may carry out product audits biennially.

END OF CERTIFICATE