



Certificate no.:
TAD00001KV

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Miscellaneous

with type designation(s)
18.75 15K DX-DW Hydraulic Connector, Part No. 2-609343-02, Rev. NC

issued to
Dril-Quip, Inc.
Houston, TX, USA

is found to comply with
DNV-OS-E101 – Drilling facilities, Edition July 2021
and DNV AS' understanding of the implementation and interpretation of:
PSA's "Regulations relating to design and outfitting of the facilities etc. in the petroleum activities" (THE
FACILITIES REGULATIONS), Last amended 16 December 2014, Ch.VIII

Application:

See Page 2

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

The TAC is to replace the TAC D-5592

Issued at **Houston** on **2023-11-30**

This Certificate is valid until **2028-11-29**.

for **DNV**

DNV local unit: **Certification & Inspection Services**

Approval Engineer: **Bo Cui**

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.



References

- API Spec 16A, Specification for Drill-through Equipment, 4th Ed
- API Spec 6A, Specification for Wellhead and Christmas Tree Equipment, 21th Ed
- NACE MR0175, Materials for Use in H₂S-containing Environments in Oil & Gas Production, 2nd Ed

Product description

DX-DW Wellhead Connector on a 27" H-4 Wellhead, 15,000 psi WP

Applications / Limitations

Design Parameter	Value
Nom Size	27.0 H-4 VX/VT x 18.75 15K CX-18 Studded
Max Working Pressure	15,000 psi
Max Test Pressure	22,500 psi
Hydraulic Working Pressure - Lock	750 to 1,500 psi
Max Hydraulic Test Pressure - Lock	4,500 psi
Hydraulic Working Pressure - Unlock	1,500 to 3,000 psi
Max Hydraulic Test Pressure - Unlock	4,500 psi
Hydraulic Working Pressure - Sec Unlock	1,500 to 3,000 psi
Max Hydraulic Test Pressure - Sec Unlock	4,500 psi
Max Tension and Equiv Bending Moment at 0 ksi	1.349 x 10 ⁷ lb and 7.233 x 10 ⁶ ft.lb See Note
Max Tension and Equiv Bending Moment at 15 ksi	8.763 x 10 ⁶ lb and 4.698 x 10 ⁶ ft.lb
Temperature Class - Metallic Materials	T-0 (0 to 250 °F)
Temperature Class - Non-Metallic Seal Materials	XX (40 to 180 °F Without Verification Test)
Service	H ₂ S

Note:

These capacities are based on pure tension and equivalent bending moment. They do not take into account compression of the hub face during pure bending or the capacity of the wellhead. When considering the compression of the hub face during pure bending, the system has 3.377 x 10⁶ ft.lb pure bending capacity without internal pressure.

Type Approval Documentation

Test Reports

See Design Package for Test Report for 18-3/4 15K DX-DW Hydraulic Connector, Part Number 2-609199-03, Serial Number 275724-01 with reference to DNV GL Project No. PP104350-3

Marking of Product

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

Periodical Assessments

For retention of the Type Approval, DNV's surveyor shall perform periodical assessment after 2 years (+/- 90 days) and after 3.5 years (+/- 90 days) in accordance with DNV's Class Program DNV-CP-0338, Section 4.

Comments

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

End of Certificate