



Certificate No:
TAD00001ER

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Miscellaneous

with type designation(s)
DXe Hydraulic Connector, 18.75" 15K 30" X 27"

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

is found to comply with
DNVGL-OS-E101 – Drilling facilities, Edition January 2018
DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2018

Application :

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

Issued at **Houston** on **2021-07-09**

This Certificate is valid until **2026-07-08**.

for **DNV**

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

Approval Engineer: **Srujanbabu Sridharala**

.....
Meindert van Mierlo
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 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.



Form code: TA 251

Revision: 2021-03

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Product description

Hydraulically actuated drill-through equipment that locks and seals on end connections.

Part No.	Rev.	Description	Note
2-610469-02	NC	18-3/4 15K DXe Hydraulic Connector	For 27" and 30" Mandrel

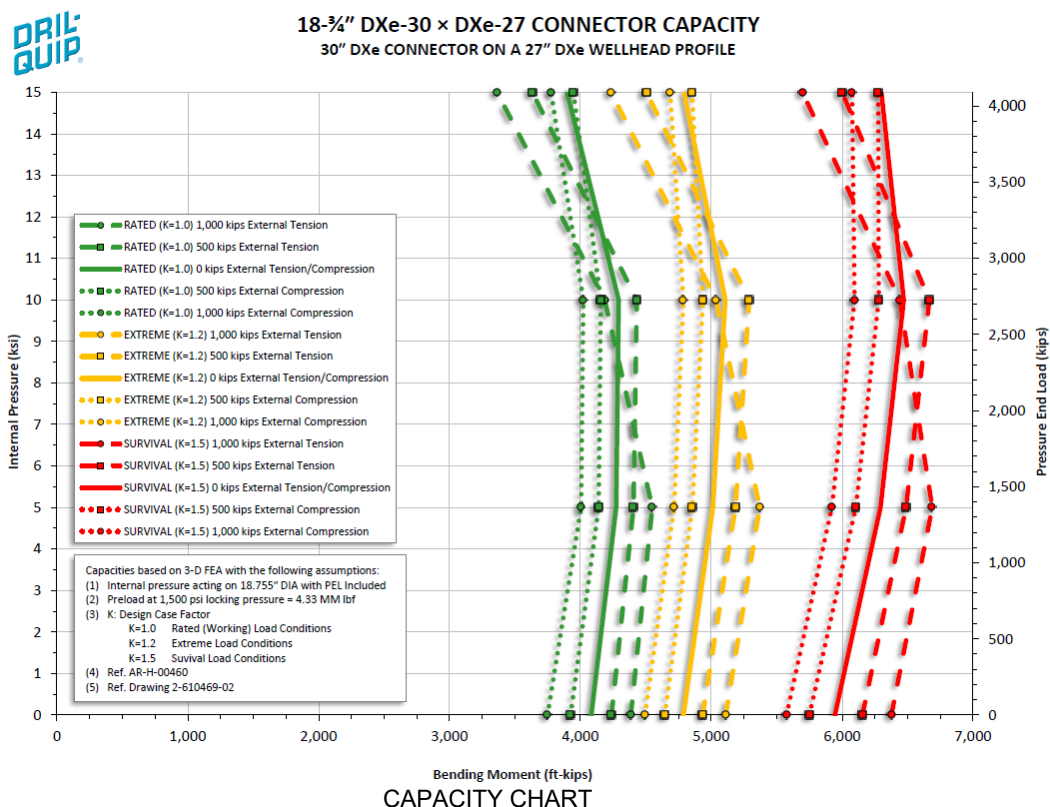
Applied Normative References

[1] API Spec 16A, Specification for Drill-through Equipment, 4th Edition

Application/Limitation

DXe Hydraulic Connector, P/N 2-610469

Design Parameter	Value	(Equivalent)
Nominal Size Designation	18.75 in	(476mm)
Rated Working Pressure	15,000 psi	(103.5 MPa)
Hydrostatic Test Pressure	22,500 psi	(155.1 MPa)
Normal Hydraulic Operating Pressure, Lock	750 psi	(5.2 MPa)
Max. Hydraulic Operating Pressure, Lock	1,500 psi	(10.3 MPa)
Normal Hydraulic Operating Pressure	1,500 psi	(10.3 MPa)
Max. Hydraulic Operating Pressure	3,000 psi	(20.7 MPa)
Hydraulic Operating Test Pressure	4,500 psi	(31.0 MPa)
External Load & Bending Moment at 0 psi ^{Note 1}	Refer to Capacity Chart below	Refer to Capacity Chart below
API 16A Temperature Ratings for Metallic materials (T-0)	0°F to 250 °F	(-18°C to 121°C)
API 16A PR	PR1	PR1
System, Equipment, Service	Well Control System, BOP Equipment, H ₂ S (Sour)	



Notes:

1. Equipment may be further limited by the API 16A End Connection.

Type Approval documentation

Marking of product

Marking shall:

1. Be reviewed and approved by the DNV local surveyor.
2. Identify and differentiate each production unit <i.e. serial number>.
3. Establish traceability to product design and fabrication documentation.
4. Be in conformance to API 16A §9.

Comments

1. Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/approved by DNV 's local surveyor.
2. Substitution of materials listed in the specified assembly drawings will be acceptable if equal or higher property values are present.

Periodical assessment

For retention of the Type Approval, DNV's surveyor shall perform a survey every second year in accordance with DNV GL Type Approval Scheme DNVGL-CP-0338, September 2018 Edition.

END OF CERTIFICATE