



Certificate No:
TAD00001KB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Well Testing Equipment

with type designation(s)
EZCM-AC, CUTTING MODULE, SENTREE3, CI

Issued to

OneSubsea LLC - Houston
Houston, TX, USA

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2021

DNV statutory interpretations DNV-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2021

Application :

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

Issued at **Houston** on **2023-09-25**

This Certificate is valid until **2028-09-24**.

for **DNV**

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

Approval Engineer: **Pari Natarajan**

Mark Miser
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: 2022-12

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Product description

- EZCM-AC, CUTTING MODULE, SENTREE3, CI

Manufacturing facility

- OneSubsea, Taubaté, São Paulo, Brazil

Design codes/standards used as references

- API 6A, Specification for Wellhead and Tree Equipment, 21st Edition

Application/Limitation

Design Parameter	Value
Maximum Internal Working Pressure	15,000 psi
Internal Test Pressure	22,500 psi
Maximum Control Line Pressure	6,500 psi
Control Line Test Pressure	10,000 psi
Maximum Hanging Load at 15,000 psi with Stop Nut T6002112	255,000 lbf
Maximum Hanging Load at 15,000 psi with Turnbuckle 100028851	330,000 lbf
Maximum Hanging Load at 0 psi	520,000 lbf
Minimum Design Temperature	32° F
Maximum Design Temperature	350° F
Corrosion Allowance	0.006 inch
Service	H ₂ S

Type Approval documentation

Note: Other part numbers or updated revisions may be acceptable under this Certificate, provided critical aspects of the design remain the same. Changes shall be documented and approved (via Engineering Change Notice or similar) by the Manufacturer's Engineering and/or Quality Department as appropriate. DNV local surveyor shall verify the change before issuance of the Product Certificate.

Tests carried out

Production testing in accordance with reports 102009323_AB and 102000394_AC has been reviewed to be acceptable for type testing purposes.

Marking of product

For traceability, the product shall be marked as per OSS spec SH710505 & FAT –102009323 & 102000394, Section 9 - Asset ID, part number and serial number.

Periodical assessment

Periodical assessments for type approvals will be required after two years (+/- 90 days) and after three-and-a-half years (+/- 90 days) in accordance with DNV-CP-0338, Section 4.

Other Comments and Conditions

- Procedures related to testing, welding, NDT, and other quality control requirements are to be reviewed/ approved by the DNV local surveyor.
- Manufacturing records are to be maintained in accordance with DNV-OS-E101 Ch.3 Sec. 3 [2].
- When DNV Product Certification is required, each product must be surveyed during fabrication in accordance with the requirements of Offshore Standard DNV-OS-E101 for Category I equipment.
- DNV Reference Project: A1415215

END OF CERTIFICATE