



Certificate no.:
TAD00001NM

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Hoisting, Rotation and Pipehandling Equipment**

with type designation(s)
BOP Landing and Assistance Tool (BLAT), BLAT Interface Joint

issued to

MHWirth AS
Kristiansand S, Norway

is found to comply with

DNV-OS-E101 – Drilling facilities, Edition July 2024

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

Application:

See next page.

Issued at **Høvik** on **2024-08-16**

This Certificate is valid until **2029-08-14**.

for **DNV**

DNV local unit: **Oslo Drilling Systems & Lifting Appliances**

Approval Engineer: **Axel Janson**

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: 2023-09

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Reference Standards

API Spec. 8C, Drilling and Production Hoisting Equipment (PSL1/PSL2), 5th Ed., April 2012

Product Description

The BOP Landing and Assistance Tool (BLAT) is used for lifting the assembled riser string and BOP-stack when relocating from one well to another within a template.

Application/Limitation

<u>Design Parameter</u>	<u>Value</u>	<u>Equivalent</u>
API 8C Load Rating:	325 mT	3196 kN
Max Hydraulic Working Pressure:	207 bar	3000 psi
Min. Design Temperature:	-20 °C	-4 °F
Safety Factor Applied:	2.55	

Type Approval Documentation

Material Specification

<u>Component</u>	<u>Material</u>	<u>Min Yield</u>	<u>Charpy Requirement</u>
BLAT Interface Joint	ASTM A182 Grade F22	640 MPa	Min. 42 J @ -20 °C
Lower Body - Mandrel	AISI 4340	931 MPa	
Dogs	AISI 4145 30-36 HRC	758 MPa	

Fabrication and Testing Procedures

Test Procedures:

1. Proof load test shall be performed in according to API Spec. 8C, §8.6.2.
2. The hydraulic system shall be pressure tested in accordance with DNV-OS-E101 Ch.2 Sec.8 §3.3.
3. Charpy testing shall be performed in accordance with DNV-OS-E101 Ch.2 Sec.2.

NDE Procedures:

4. NDE/NDT shall be performed in accordance with DNV-OS-E101 Ch.2, Sec.8 §3.1.

Welding Procedures:

5. Qualification of welding procedures and qualification of welders shall be in accordance with DNV-OS-E101 Ch.2, Sec.8 §2.

Marking of Product

Each component shall be marked according to API Specification 8C, Section 10, including at least:

- Part No.
- Serial No.
- Rated Load Capacity
- API 8C Product Specification Level (if applicable)
- Manufacturers Name or Mark

Other Conditions and Comments

- Materials shall be delivered with 3.1 certificates according to EN10204.

- Each product are to be surveyed during fabrication in accordance with the requirements for equipment of Category I as defined in DNV Offshore Standard DNV-OS-E101, followed by issuance of a DNV Product Certificate.
- This Type Approval Certificate replaces the previously issued certificate TAD00000V3.

Certificate Retention Survey

For retention of this Type Approval Certificate, DNV AS's representative shall carry out surveys every second year in accordance with DNV Type Approval Scheme DNV-CP-0338.

END OF CERTIFICATE