Certificate no.:
TAD00001MY

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Blow out Preventer

with type designation(s)
DSI Blind Shear Ram Assembly Upper/Lower Module U/UM 13-5/8" 10,000psi

issued to
SLB - Well Construction Division
Sugar Land, TX, USA

is found to comply with
DNV-OS-E101 – Drilling facilities, 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 **2024-05-15**
This Certificate is valid until **2029-05-15**.
DNV local unit: **Houston, Approval CMC**

for **DNV**

Approval Engineer: **Benjamin P Parker**

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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.

Reference Standards

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

Application/Limitation

Parameter	Value	(equivalent)
Nominal Size	:Ø 13 5/8 in.	(Ø 346 mm)
Rated Working Pressure	:10,000 psi	(68.9 MPa)
BOP Type	:U/UM	
Temperature Rating for Metallic Materials API 16A "T-20/350"	: -20°F to 350°F	(-29°C to 176°C)
Temperature Rating for Nonmetallic Sealing Materials		
Low Temperature Limit (E)	: 30°F	(-1°C)
Continuous Elevated Temperature Limit (D)	: 240°F	: (116°C)
Extreme Temperature Limit (F)	: 350°F	(177°C)
Performance Requirement Level System	: Well Control System	
Equipment Service	:Sour/H_2S	

Type Approval documentation

Tests carried out

1. Design Validation Testing was reviewed and found to conform to API 16A PR2.

Marking of product

Marking shall:
1. Be reviewed and approved by the local DNV Surveyor.
2. Identify and differentiate each production unit <i.e. serial number>.
3. Establish traceability to the product design and fabrication documentation.
4. Conform to API 16A (Ref. §8).

Periodical assessment

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