



Certificate no.:
TAD00001T6

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Marine Riser Equipment**

with type designation(s)

Choke & Kill Lines, Mud Booster Lines, Hydraulic Lines, Adjustment Sleeves

issued to

Global Riser, S.L.

Las Palmas de Gran Canaria, Las Palmas, Spain

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:

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

Issued at **Houston** on **2026-03-20**

This Certificate is valid until **2031-03-19**.

for **DNV**

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

Approval Engineer: **Mark Miser**

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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 USD 300 000.

Product description

Auxiliary Line Assemblies and components intended for installation in Marine Drilling Riser assemblies (i.e. Hydraulic, Mud Boost, Choke & Kill lines and Adjustment Sleeves; as assembled in the manufacturer's R3.5-4 Marine Drilling Riser Types A, B & C). This Type Approval may be used for new product or as the design basis for overhauled/remanufactured product.

Design codes/standards used as references

API Specification 16F, *Specification for Marine Drilling Riser Equipment*, 2nd Edition
API Specification 16C, *Choke & Kill Equipment*, 3rd Edition

Application/Limitation

<u>Design Parameter</u>	<u>Value</u>
Riser Joint Assembly R3.5-4 Types A, B & C (shown for design input reference only)	
API 16F Rated Load (Design input reference)	: 3,500,000 lbf axial load sharing with no internal pressure and when Bending Moment = 0 ft-lbf
Choke and Kill Lines	
Design Temperature	: -4°F to 250°F
API 16C Temperature Rating	: "A" (-4°F to 180°F)
API 16F Fluid Temperature Range	: 32°F to 180°F
API 16F/API 16C Rated Working Pressure	: 15,000 psi
API 16F/API 16C Fluid Service Condition	: Sour (NACE MR0175)
Mud Boost Lines	
API 16F Rated Working Pressure	: 5,000 psi (Type A) : 7,500 psi (Types B & C)
API 16F Fluid Temperature Range	: 32°F to 135°F
API 16F Service	: Standard (Types A & C) : Sour (NACE MR0175) (Type B)
Hydraulic Lines	
API 16F Rated Working Pressure	: 5,000 psi
API 16F Fluid Temperature Range	: 32°F to 135°F
API 16F Service	: Standard
General	
Systems; Equipment	: Well Control System, Drilling Riser System; Marine Riser equipment, Riser Auxiliary Line Assemblies (load sharing)

Type Approval documentation

Tests carried out

Marking of product

For traceability the following marking is to be carried out on each product:

1. Serial No.
2. Manufacturer's name or trademark.
3. Marking as specified by API 16F.
4. Additional Marking at manufacturer's discretion.

Periodical assessment

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 Programme DNV-CP-0338, Section 4.

Manufactured by:

Global Riser - 3500 Segura Rd, New Iberia, LA 70560, USA (DNV – HOUSTON)