Certificate No:
TAS00003K8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Portable Offshore Units

with type designation(s)
Skid for 4-1/16" -10K Choke Manifold, 4-valves

Issued to
Worldwide Oilfield Machine, Inc.
Houston, TX, USA

is found to comply with
DNV standard DNV-ST-E273 – 2.7-3 Portable offshore units, April 2016 (Amended October 2021)

Application :

Max. gross weight	**:**	**5,364 kg**	**11,825 lbs**
Max. payload	**:**	**4,341 kg**	**9,570 lbs**
Max. sling leg angle	**:**	**30 °**	

Issued at **Houston** on **2022-10-11**
This Certificate is valid until **2027-10-10**.
DNV local unit: **Houston Offshore Services**

Approval Engineer: **Simon Ouyang**

for **DNV**

Simon Ouyang
Principal Engineer

Mohsen Shavandi
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.

Manufactured By

Worldwide Oilfield Pvt. Ltd.
DNV CIM No.: 1217208
Pune, India
Local DNV Office: Mumbai

Responsibility

Worldwide Oilfield Machine, Inc. takes full responsibility that both the design and production are in compliance with the Rules, Standards and / or Regulations listed on page 1.

Product description

Magnum C/W Lifting Frame
POU Type : DNV 2.7-3 Type B R30
Max. Tare : 1,023 kg 22,55 lbs

Application/Limitation

Min. Design Temperature	:	-20	°C	-4	°F
Max. Sling Angle w/ Vertical	:	30	°		
Shackle WLL	:	6.50	t	14,330	lbs
Min. Shackle Pin Diameter	:	25.4	mm	1.00	inch

The Skid for 4-1/16" -10K Choke Manifold, 4-valves with Part No. M0618-S has been approved as Type B unit with an operational class R30 for transportation and lifting in air.

DNV surveyor to witness important production and test events and issue no. MOP 201, "Certificate for Portable Offshore Unit" for each unit.

Type Approval documentation

This approval is based on DVR-262.1-038259-J-2, Rev. 0 issued 2022-09-02.

Doc. No.	Rev.	Title

Materials Specifications

Component	Material	Min Yield Strength	Avg. Charpy Value
Structural Channel and Tubing	ASTM A500 Gr. B	46 Ksi [315 MPa]	32 J @ -10 °C for 6 < t ≤ 12 mm 32 J @ -20 °C for 12 < t ≤ 25 mm 32 J @ -40 °C for 25 < t ≤ 50 mm
Padeye	ASTM 516 Gr.70	38 Ksi [260 MPa]	27 J @ -40 °C for 25 < t ≤ 50 mm

Tests carried out

Prototype for the Choke Manifold Skid with part number: M0618-S, serial number: IO00144356-5-1 tested on 2022-09-27 according to Standard for Certification DNV-ST-E273, April 2016.

Prototype Load Test Reports reviewed and accepted by DNV Houston on 2022-10-11. Production testing to be carried out per DNV-ST-E273 Section 5.4.

Marking of product

Marking is to be carried out in accordance with DNV-ST-E273 Section 6.

Periodical assessment

Periodical assessment to be carried out at intervals not exceeding 12 months and after substantial repair or alteration according to Standard for Certification DNV-ST-E273, 2016 edition.

END OF CERTIFICATE