Certificate no.:
TAS00004M8

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Portable Offshore Units

with type designation(s)
LRP, EDP and H4 Connector Test/ Shipping skids

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 May 2022)

Application:

EDP Test/ Shipping Skid

Max. gross weight:	**5,026 kg**	**11,081 lbs**
Max. payload:	**1,016 kg**	**2,240 lbs**
Max. sling leg angle:	**30 °**	

LRP Shipping Skid

Max. gross weight:	**4,735 kg**	**10,440 lbs**
Max. payload:	**1,016 kg**	**2,240 lbs**
Max. sling leg angle:	**30 °**	

LRP Test Skid

Max. gross weight:	**16,102 kg**	**35,500 lbs**
Max. payload:	**12,020 kg**	**26,500 lbs**
Max. sling leg angle:	**30 °**	

H4 Connector Test/ Shipping Skid

Max. gross weight:	**16,102 kg**	**35,500 lbs**
Max. payload:	**12,020 kg**	**26,500 lbs**
Max. sling leg angle:	**30 °**	

Issued at **Houston** on **2021-09-21/2022-03-15/2025-02-11**
This Certificate is valid until **2026-09-20**. for **DNV**
DNV local unit: **Houston, Technical Advisory and Verification**

Approval Engineer: **Simon Ouyang**

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

Worldwide Oilfield Machine, Inc.
5800 Cunningham Road
Houston, TX 77041 USA

Responsibilities

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

EDP Test/Shipping Skid, P/N: DRE1-SHE-90000-014)
POU Type: DNV 2.7-3 Type B R00
Max. Tare: 4,010 kg 8,841 lbs

LRP Shipping Skid, P/N: DRS2-SHE-90000-014)
POU Type: DNV 2.7-3 Type B R00
Max. Tare: 3,720 kg 8,200 lbs

LRP Test Skid, P/N: SHD-00012-004)
POU Type: DNV 2.7-3 Type B R00
Max. Tare: 4,082 kg 9,000 lbs

H4 Connector Test/Shipping Skid, P/N: SHD-00012-004M)
POU Type: DNV 2.7-3 Type B R00
Max. Tare: 4,082 kg 9,000 lbs

Application/Limitation

Min. Design Temperature:	-20°C	-4 °F
Max. Sling Angle w/ Vertical:	30 °	
Shackle WLL:	6.5 ton	14,330 lbs
Min. Shackle Pin Diameter:	25.908 mm	1.02 inch

The test skid for EDP/LRP with P/N: SHE-00035-014, Rev. 4 has been approved as Type B unit with an operational class R00 for Lift onshore, inshore and on board vessels/platforms offshore, but not between vessels/platform offshore.

The lift test skid with P/N: SHD-00012-004, Rev. 4 has been approved as Type B unit with an operational class R00 for Lift onshore, inshore and on board vessels/platforms offshore, but not between vessels/platform offshore.

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-261.1-034235-J-2 Rev. 0 issued on 2020-11-18 and DVR-346.1-J-21562 issued 2024-04-12.

Doc. No.	Rev.	Title
DRE1-SHE-90000-014	2	GA drawing, EDP Test Skid. F/ DRS#1
DRS2-SHE-90000-014	0	GA drawing, Shipping Skid, LRP, DRS#2 GA drawing, Test/Shipping
SHE-00035-014	4	GA drawing, Test/Shipping Skid, EDP/LRP
SHE-00035-016	5	GA drawing, Test Skid, EDP/LRP
SHE-00035-019	0	Drawing, LRP Assy w/ Test Skid, COG Shown at Normal &Tilted
SHE-00035-019A	0	GA Drawing, Lift/Shipping Skid, COG shown with Payload
SHE-00035-014 BOM	4	Engineering BOM Report FOR Assembly No. SHE-00035-014
WoM/FEA/121	1	FE Analysis for Skid Base (PN: SHE-00035-016)
EC-SHE-00035-014	0	Engineering Calculation EC-SHE-00035-014 per DNVGL-ST-E273 on 10/9/2020
EC-Design Loads	1	Engineering Calculation EC-Design Loads on 10/9/2020
Design package	0	Design package for SHE-00035-014&SHD-00012-004 issued on 11/08/2019
SHD-00012-004	4	Weldment drawing, LRP Test Skid
SHD-00012-000-A	0	GA Drawing, Lift/Shipping Skid, COG Shown with Padeye
EC-SHD-00012-004	0	Engineering Calculation EC-SHD-00012-004 per DNVGL-ST-E273 on 10/9/2020
SHD-00012-004M	1	GA drawing, H4 Connector w/Test Skid, Stump & Lift Test Flange
EC-SHD-00012-004-2E	0	Engineering Calculation EC-SHD-00012-004-2E on 09/17/2020

Materials Specifications

Component	Material	Min. Yield Strength	Avg. Charpy Value
Hollow Sections	ASTM A500 Gr. C	315 MPa	32 J @ -10 °C for 6 <t s 12 mm 32 J @ -20 °C for 12 <t s; 25 mm 32 J @ -40 °C for 25 <t s; 50 mm
Plates	ASTM A572 Gr. 50	345 MPa	35 J @ -10 °C for 6 <t s 12 mm 35 J @ -20 °C for 12 <t s; 25 mm 35 J @ -40 °C for 25 <t s; 50 mm
Padeyes	ASTM A572 Gr. 50	345 MPa	35 J @ -10 °C for 6 <t s 12 mm 35 J @ -20 °C for 12 <t s; 25 mm 35 J @ -40 °C for 25 <t s; 50 mm

Tests carried out

Prototype for the Test Skid, EDP/LRP with part number: SHE-00035-016 Rev. 5, serial number: A-37326; job number BW3741 tested on 2021-04-30 according to Standard for Certification DNVGL-ST-E273, April 2016. Prototype Load Test Reports reviewed and accepted by DNV Houston on 2021-08-31. Production testing to be carried out per DNV -ST-E273 Section 5.2.3.

Prototype for the Lifting Test Skid with part number: SHD-00012-004 Rev. 4, serial number: A-40447, job number SW0013 tested on 2022-02-08 according to Standard for Certification DNV-ST-E273, April 2016. Prototype Load Test Reports reviewed and accepted by DNV Houston on 2022-03-01. Production testing to be carried out per DNV-ST-E273 Section 5.2.3.

Prototype for the Lifting Test Skid with part number: SHD-00012-004M Rev. 0, serial number: A-41571 tested on 2024-09-25 according to Standard for Certification DNV-ST-E273, April 2016. Prototype Load Test Reports reviewed and accepted by DNV Houston on 2025-01-25. Production testing to be carried out per DNV-ST-E273 Section 5.2.3.

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 DNVGL-ST-E273, 2016 edition.

Note

This TAC with number TAS 00004M8 Rev. 0 superseded the previous TAC with number TAS00003CW Rev. 0 issued on 2022-03-15 due to the Skid numbers have been updated to DRE1-SHE-90000-014, Rev. 2 and DRS2-SHE-90000-014, Rev. 0 and SHD-00012-0004M, Rev. 0 into this TAC.

END OF CERTIFICATE