Certificate no.:
**TAS000048T**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**that the portable offshore unit**

with type designation(s)
**Subsea basket**

issued to
## Swire Energy Services AS
**Tananger**, **Norway**

is found to comply with
**DNV standard DNV-ST-E273 – 2.7-3 Portable offshore units, April 2016 (Amended May 2022)**

## Application:

| | |
|---|---|
| **Max. gross mass (kg)** | **5550** |
| **Max. payload (kg)** | **3300** |
| **Max. sling leg angle** | **30** |

Issued at **Aberdeen** on **2024-06-10**
This Certificate is valid until **2029-06-09**.
DNV local unit: **Gdynia**

for **DNV**

Approval Engineer: **Elisabeth Legg**

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

DNV CIM Number 134179

Local DNV office: Gdynia

## Responsibility

Swire Energy Services Ltd take full responsibility that both the design and production are in compliance with the Rules, Standards and / or Regulations listed on page 1.

## Product description

| | |
|---|---|
| Maximum external dimensions (LxWxH) | : 3800 x 2438 x 1864 mm |
| Tare mass* | : 2250 kg |
| Type | : A |
| Operational Class | : R45-SXX |

*) Tare mass is to be confirmed by weighing. The sum of tare and payload shall never exceed the maximum gross mass stated on the front page of this certificate.

## Application/Limitation

| | |
|---|---|
| Shackle size | : 6.5t |
| Resultant sling force (RSF) | : 98.4 kN |
| Minimum design temperature | : -20 ºC |

DNV surveyor shall witness important production and test events and issue Form no. MOP 201 “Certificate for Portable Offshore Unit” for each unit.

Deployment and recovery through the splash zone and subsea shall be managed and controlled in such a way as to avoid instability of the basket and its contents. Consideration should be given, but not limited to, lowering speed, filling speed, centre of gravity, variable centre of buoyancy and security of contents during deployment through the splash zone in particular.

It is assumed that recovery loads (relating to, for example, suction on the seabed, subsequent release, marine growth, accumulated oil/debris, entrained water etc.) will not exceed those adopted for the purposes of deployment. It is the end user’s responsibility to ensure that operations are managed and controlled, such that design parameters are not exceeded in practice.

The adequacy of long-term corrosion protection is considered out-with the scope of this approval. The unit shall be maintained in accordance with the manufacturer’s instructions and subject to periodic inspections as per Table 8-1 in DNV-ST-E273, or at more regular intervals as deemed necessary.

This design does not have a pre-defined limiting installation wave height when lifting subsea. It is the responsibility of the End User to ensure dynamic factors during subsea lifting are less than calculated in DNV-ST-E273.

## Type Approval documentation

### Tests carried out
Prototype tested in accordance with DNV-ST-E273.

### Marking of product
Marking shall be carried out in accordance with to DNV-ST-E273 section 6.

### Periodical assessment
In order to maintain the validity of the type approval certificate, periodical assessments should be carried out according to DNV-SE-0284 at 2 and 3.5 year intervals. Periodical assessments will, when possible, be harmonised with other surveys and audits carried out.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com