



Certificate no.:
TAS00004HC

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Gangway

with type designation(s)
45m Offshore gangway

issued to

Osbit Ltd
Riding Mill, Northumberland, United Kingdom

is found to comply with

DNV standard DNV-ST-0358 – Offshore gangways

Application:

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

Issued at **Høvik** on **2024-11-27**

This Certificate is valid until **2029-11-26**.

for **DNV**

DNV local unit: **UK & Ireland CMC & VMC**

Approval Engineer: **Paulo Correia**

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

Product: 45m telescopic Offshore gangway

Application/Limitation

Categorization: TYPE 4 Offshore gangway, from fixed-to-fixed asset

Operational (vessel in jacked-up condition)		
Configuration		cantilever
Live Load (LL)		467 kg (4 persons)
Maximum operational length*		45.0 m
Minimum operational length*		25.0 m
Wind speed (at gangway CoG)		15 m/s
Gangway Operating angle (from horizontal)		+30° / -30° (unrestricted personnel transfers)
Vessel accelerations**	Vertical (in addition to gravity)	0m/s ²
	Longitudinal	0m/s ²
	Transverse	0m/s ²
Parked / Transit / Survival		
Configuration		Bridge supported by a support structure
Live Load (LL)		-
Maximum Length*		25.0 m
Wind speed (at gangway location)		44 m/s
Gangway stowage angle (from horizontal)		+2°
Green sea loads		N/A
Vessel accelerations**	Vertical (in addition to gravity)	±2.67m/s ²
	Longitudinal	1.12m/s ²
	Transverse	3.77m/s ²

*) measured from the centre of the main hinge to outmost part of the gangway bridge, excluding tip ladder.

**) relative to the vessel axis

Self-weight: 49.5 tonnes

Design temperature: -20°C

Usage: ref C-427-04-001 rev B sec 6

Service life: ref C-427-04-001 rev B sec 7.2

The operational limitations defined above have been provided by Osbit Ltd., data and procedures adopted for estimating which have not formed part of this review. It is the end user's responsibility to ensure that these are never exceeded during service.

It has been confirmed by the designer that the flow of people will be continuously monitored and regulated throughout the period in which the gangway is in operational / working condition, thus preventing the load on the gangway to exceed the above defined LL at any given time.

The Type approval is covering the offshore gangway bridge, slew platform, slew pedestal, end step, deck grillage and the transit rest.

The Type Approval is not covering any mechanical, electrical or hydraulic components. See *Certification* for more information.

Approval limitations

1. During transit/survival/parked position, the gangway will be supported by a transit rest. The transit rest's foundation (underdeck strength) is not part of the Type approval.
2. The deck foundation below the grillage shall provide a stiff support according to the design assumptions, ref. doc no. C-427-10-016 Rev A. Any other arrangement/stiffness of the vertical support structure (foundation) is not covered by the type approval.
3. The type approval is not covering the operational or safety aspects of the gangway emergency recovery procedure, ref C-427-04-001 rev B sec 6.3.2. It is the end user's responsibility to perform a risk assessment and plan the operation accordingly.
4. The review has not covered the following:
 - Green sea forces while gangway is parked or in operation
 - The secondary stairs/ramps;
 - Friction/sliding surfaces. It is the end user's responsibility to ensure they are maintained properly and replaced according to manufacturer's specifications
 - Lifting the gangway or any of its sub-components during installation
 - Corrosion and functionality in marine environment

Type Approval documentation

Certification

This Type Approval covers design(s) only, i.e. the Type Approval is not valid for the final product, but may be used as basis for obtaining a product certificate.

If a DNV Product Certificate is required, the following shall apply:

- The manufacturing survey shall be followed-up by a DNV Surveyor
- Sub-components shall be provided with certificates as per DNV-ST-0358 tables 2-2 and sec 5.14, 5.15 and 5.17.
- The turnbuckles shall be delivered with Manufacturer PC documenting their minimum breaking load and proof test load.
- The power supply for the illuminating system shall be redundant, i.e. main power supply and emergency power supply in form of battery packs on each light fixture or strip or connected to the vessel's emergency power supply, ref DNV-ST-0358 sec 5.9.
- The gangway enhanced slip resistant features/treads suitability @ min/max gangway operating angles shall be assessed, tested and approved by the attending DNV surveyor. The test shall be performed for the normal operational, as well as the emergency (2 persons carrying a stretcher) conditions.
- Each gangway shall be tested in accordance with DNV-ST-0358 Section 7 and above approved test procedures in the presence of a DNV Surveyor.

Marking of product

Each gangway shall be marked in accordance with DNV-ST-0358 Section 7.4.

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

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>.

End of certificate