DNV·GL

Certificate No:
TAS00002T0

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Crane Pedestal

with type designation(s)
Modular component for offshore gangway pedestal, Adaptor plate

Issued to
SMST Designers & Constructors B.V.
Drachten, Friesland, Netherlands

is found to comply with
DNV GL standard DNVGL-ST-0358 – Certification of offshore gangways for personnel transfer

Application :

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

Issued at **Høvik** on **2020-12-07**
This Certificate is valid until **2025-12-06**.
DNV GL local station: **Netherlands CMC**

Approval Engineer: **Florian Teica**

for **DNV GL**

Aldo Matteucci
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.

Job Id: **262.1-034605-1**
Certificate No: **TAS00002T0**

Product description

Equipment type: Pedestal module 2
Equipment use: Modular component for offshore gangway pedestal

Equipment type: Adapter plate
Equipment use: Seafastening device allowing 2 pedestal module types (the one covered by this Type approval and the one covered by TAS00001HU) to be clamped/bolted together.

Application/Limitation

Pedestal module 2

Description: reinforced container shaped modules that may be stacked in order to form a pedestal for an offshore gangway

Self-weight 1 x "stacking module": 6.60 tonnes
Self-weight 1 x "half stacking module": 3.80 tonnes

Height 1 x "stacking module": 2886 mm
Height 1 x "half stacking module": 1433 mm

Offshore gangway type designation	**TAB-L without offshore crane function**					**TAB-L with offshore crane function**					**TAB-L without offshore crane function**				**TAB-L with offshore crane function**			
Maximum number of modules/nominal stack height (from deck face to to gangway tip @0 deg bridge angle)	7 modules / 24.0 m 6.5 modules / 22.57 m (when using half stacking modules)										up to 8 modules / 26.83 m 7.5 modules / 25.40 m (when using half stacking modules)							
Stack configuration	1. The pedestal stack may be formed of modules of 2 types, i.e. regular and reinforced. Ref 1600224-B-B3-01 Rev A, the reinforced pedestal modules (Stacking module 2) shall always be placed at the bottom of the stack; for any stack configuration, the maximum number of reinforced pedestal modules may be up to 3. 2. The bottom full size module can be replaced by 1 half stacking module. The half stacking module shall always be placed at the base of the pedestal stack.																	
Self-weight of access platform and jib crane(at the top of the pedestal/stack)	4.0 tonnes																	
Self-weight Flatrack (at the top of the pedestal/stack)	7.0 tonnes																	
Maximum mass above slewing bearing	19 tonnes																	
Working parameters (at gangway slewing bearing, based on	Operational	Transit/parked				Operational	Transit/parked				Operational	Transit/parked			Operational	Transit/parked		
Axial force	19 tonnes	**				19 tonnes	**				19 tonnes	**			19 tonnes	**		
Overturning moment [kN x m]	1700	**				2000*	**				1700	**			2000*	**		
Torsion incl. Wind [kN x m]	650	**				700*	**				650	**			700*	**		
Vessel accelerations																		
Vertical (in addition to gravity) [m/s^2]	±3,5	±10	±10	±6	±6	±2,5	±10	±10	±6	±6	±3,5	±10	±6	±6	±2,5	±10	±6	±6
Longitudinal (parallel with the length of the module) [m/s^2]	3,5	10,0	0	0	8,0	2,5	10,0	0	0	8,0	3,5	5,0	8,0	0	2,5	5,0	8,0	0
Transverse (parallel with the width of the module) [m/s^2]	3,5	0	10,0	8,0	0	2,5	0	10,0	8,0	0	3,5	5,0	0	8,0	2,5	5,0	0	8,0
Wind speed (at gangway level) [m/s]	25	44		63		25	44		63		25	44			25	44		
Maximum forces at the interface with the supporting structure	see 1600224-C-07-14 Rev A Table 17 and 1600224-C-07-17 Rev A Table 8																	
Notes	*) When a dual-purpose equipment is used (i.e. capable of performing both gangway and offshore crane functions), the above defined values, except the axial force, already include the offshore safety factor SF1 = 1.3; consequently, the equipment's nominal working parameters, except the axial load, shall be decreased accordingly.																	
	**) The loads at the top of the pedestal during transit/parked condition are the resultant loads due to a mass above the slewing bearing as defined above and a Centre of Gravity with coordinates as per 1600224-C-07-14 Rev A Table 11 and 1600224-C-07-17 Rev A Table 7 measured from the top of the Standard interface frame (SIF) 2 and alligned with the centreline of the pedestal stack.																	

Adapter plate

Reaction forces at adapter plate interface (per support)*		Operational	Transit/parked
Fx (compression)** [kN]		-101	-195
Fy (compression)** [kN]		-210	-310
Fz [kN]	uplift	975	2177
	compression	-1670	-2400

*) Maximum combination of forces that may occur in an operational/transit case
**) Axis layout as per 1600224-C-07-14 Rev A

Minimum design temperature: -20deg C

Approval conditions

The approval is based on the following:

1. During transit, it is assumed that the gangway bridge will be adequately seafastened to the flatrack. Gangway bridge seafastenings are not part of the approval.
2. The deck foundation below the pedestal stack shall provide a stiff support according to the design specifications, ref. doc no. 1600224-C-07-05A sec 4.1 and 6.2. Any other arrangement/stiffness of the vertical support structure (foundation) is not covered by the approval.
3. The approval has not covered the adequacy of the deck and supporting structure (foundation) of the vessel.
4. The bolts and shear pins connecting the pedestal modules (ref drg no 1600224-B-30-70 Rev A), as well as those connecting the modules to the supporting vessel/deck interface (grillage) are inspected according to SMST maintenance schedule for integrity and tightness.
5. The adapter plate will be assembled according to SMST procedures (ref. 1600224-B-30-60 Rev A) by SMST authorized personnel, thus ensuring the adequate efficiency of the connection between the 2 pedestal modules.
6. Adapter plate bolts shall be pre-tensioned at 70% of bolt yield strength, ref 1600224-B-30-60 Rev A. Assembly, pre-loading, regular inspections and replacement schedule according to SMST procedures.
7. It is expected that the frames are subject to regular inspections (e.g. yearly) and prior to each mobilisation. Maintenance to be performed according to SMST procedures.

Type Approval documentation

Testing

For issuance of a DNVGL Product certificate for a pedestal module 2, each module shall be load tested as part of an 8-module stack/pedestal in the presence of a DNVGL Surveyor. Test loads in accordance with DNVGL-ST-0358 Section 7.

For issuance of a DNVGL Product certificate for a pedestal/stack, each time a pedestal/stack is (re)assembled, the stack shall be load tested in the presence of a DNVGL Surveyor. Test loads in accordance with DNVGL-ST-0358 Section 7.

For issuance of a DNVGL Product certificate for an adapter plate, each assembly (ref 1600224-B-30-60 Rev A) shall be load tested in the presence of a DNVGL Surveyor. Test loads in accordance with DNVGL-ST-0358 Section 7.

Marking of product

Each module or pedestal/stack shall be marked in accordance with DNVGL-ST-0358 Section 7.5.

Periodical assessment

For retention of the Type Approval, a DNVGL 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 DNVGL-CP-0338.

End of certificate