

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Offshore Container

with type designation(s)
Offshore Container Bundle - V510-2044

Issued to
Wystrach GmbH
Weeze, Germany

is found to comply with
DNV 2.7-1 Offshore Containers (2013)
EN 12079 Offshore containers-Design, construction, testing, inspection and marking
IMO/MSC Circular 860
ISO 10961 - Gas cylinders-Cylinder bundles-Design, manufacture, testing and inspection
International Maritime Dangerous Goods Code (IMDG)
European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)
Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID)

Application :

Max. gross mass (kg)	2250
Max. payload (kg)	1700
Max. sling leg angle	45°
Enhancement factor	3.190

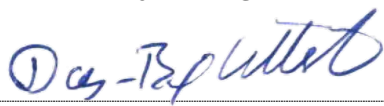
This Certificate is valid until **2021-05-18**.

Issued at **Høvik** on **2017-05-19**

DNV GL local station: **Essen**

Approval Engineer: **Igor Antonijevic**

for **DNV GL**

for 
Inger-Helene Hals
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.

Manufactured by

Offshore frame produced and assembled by:
Wystrach GmbH, Weeze, Germany.

Local office: DNV GL Essen.

Manifold manufactured by:
Wystrach GmbH, Weeze, Germany.

Wystrach GmbH takes responsibility that both design and production are in compliance with the Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

Product description

This offshore container is a gas cylinder bundle according to IMDG Code Chapter 6.2 with bottles connected through a manifold for transport of different gases as specified in Application/Limitation.

Type : V510-2044
Max. external dimensions (LxWxH) : 1440 x 1000 x 2084 mm
Tare mass¹⁾ : 550kg

¹⁾ due to varying weights of the content, the Tare mass can differ from the stated value. The sum of the Tare mass and the Payload shall never exceed the Rating stated on page 1.

Application/Limitation

Design temperature : -20°C
Min. shackle bolt diameter : 21.9 mm
Cylinder height : 570 - 1870 mm

MAWP/test pr. (bar)
- Cylinder bundle : 200/300²⁾

²⁾ maximum allowable working pressure for the cylinder bundle shall not be higher than the maximum allowable working pressure for the cylinders.

DNV GLs surveyor to witness important production and test events and issue Form no. 49.07a "Certificate for Offshore Container" for each container.

Production strength tests (All point lifting) to be carried out according to DNV 2.7-1 and after agreement with the DNV GL surveyor.

Each unit should be leak tested according to ISO 10961:2012 Section. 7.3.

Each manifold to be delivered with test certificate of proof pressure test according to ISO 10961:2012 Section 7.3 by the manifold manufacturer.

The certificates are only valid when the containers are fitted with a lifting set certified according to DNV 2.7-1 and the gas bottles are certified by authorised body.

Only certified gas bottles of the proper size and type are to be used in this frame.

The cylinder valves, the stop valves at each end of the manifold, and the cylinders comply with 2010/35/EC/TPED) and bear the П mark.

UN numbers of dangerous goods that can be transported are specified by the compatibility list issued by BAM ref. 16042986 dated 2017-01-17.

Certification marks to be marked on each bundle (H) EN 10961/N-NV/YYYY/MM³⁾

³⁾ year and month of initial inspection of each bundle

Job Id: **262.1-018380-1**
Certificate No: **TAS00000DT**

Type Approval documentation

Drawing No.	Rev.	Title	Appr. date
V510-2044 (3 sheets)	8	Offshore cylinders bundles - 18 Cylinders	2015-11-19
V510-2044-1 (2 sheets)	6	Offshore cylinders bundle - 18 Cylinders	2015-11-19
ZnNr.: 010#Sonder300		Offshore- Containergergehänge WLL 7.2t (4-Strang-Drahtseilghänge)	2015-11-19
ZnNr.: 010#Sonder300		Offshore- Containergergehänge WLL 7.2t Stückliste	2015-11-19

DVR reference: DVR-262.1-018380-J-37, dated 2015-11-19.

In addition the following documents are used as information for the Type Approval:

- Initial type approval assessment report endorsed by DNV GL Essen, dated 2015-02-24
- Prototype test report by DNV GL Essen dated 2016-02-22 and test report from TUV dated 2014-12-12

Tests carried out

Prototype tested according to DNV 2.7-1, IMDG Ch. 6.2 and ISO 10961.

Marking of product

Each container to be marked with:

- Data plates according to DNV and IMDG / EN requirements
- Container marking according to DNV / EN requirements
- Bundle marking according to ISO 10961, Chapter 6 and IMDG Code ref. 6.2.2.7 (certification marks, operational marks and manufacturing marks)
- DNV GL decal for offshore containers
- \mathcal{L} mark to be hard stamped on frame
- Manufacturer's Serial Number to be welded on frame

Periodical assessment

For retention of the Type Approval, a DNV GL surveyor shall perform an assessment every 2nd year and before the expiry date of this certificate to verify that the type approval is complied with.

END OF CERTIFICATE