



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM00003BX

This is to certify:

that

Deep Manufacturing Limited
Avonmouth, Bristol, United Kingdom

is an approved manufacturer of

Additive Manufactured Metallic Materials

in accordance with

DNV rules for classification - Ships

Class programme – DNV-CP-0267 - Approval of manufacturers – Additive manufacturing

Class programme – DNV-CP-0346 - Approval of manufacturers – DNV approval of manufacturing scheme

Class guideline – DNV-CG-0197 - Additive manufacturing – qualification and certification process for materials

and the following particulars:

Manufacturing method:	Directed Energy Deposition (DED) arc
Application area:	Steel for pressure hulls and pressure vessels for human occupancy High strength steels for hull structure and equipment Boiler and pressure vessel steels
Material type:	NV F-AM-A-WAAM-NV510S-2 NV F-AM-SR-WAAM-NV510S-2 Corresponding Grade: NV510S-2
AM equipment type and manufacturer:	4 x single robotic arm (6 - axes) 1 x single robotic arm (6 - axes) and positioner (1 - axes) 1 x single robotic arm (6 - axes) and positioner (2 - axes)
Dimensional limitations:	Max.: Ø 1.900 mm, wall thickness 14 – 89 mm, See pg.2
Post processing:	See pg. 2

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV rules. Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2025-09-18**

for **DNV**

This Certificate is valid until **2028-09-17**.

DNV local unit: **AC Europe Materials & Welding**

Approval Engineer: **Eva Junghans**

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.



Job ID: **263.11-013616-1**
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