APPROVAL OF MANUFACTURER CERTIFICATE

Certificate no.:
AMMM00001EG
Revision No:
3

This is to certify:

that

ŽDAS, a.s.
Strojírenská 675/6, 59101 Žďár nad Sázavou,
Czech Republic

is an approved manufacturer of
Steel Forgings

in accordance with

DNV rules for classification – Ships
DNV class programme – DNV-CP-0247 Steel forgings

and the following particulars:

Application area	**Forgings for hull structures and equipment,** **Forgings for shafting and machinery,** **Stainless steel forgings,** **Bolts and nuts**
Steel type	**Carbon and carbon-manganese,** **Alloy,** **Martensitic stainless**
Forging method	**Open die forging / closed die forging**
Max. weight	**See page 2**
Max. diameter	**See page 2**
Heat treatment condition	**See page 2**

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

Issued at **Hamburg** on **2026-08-26**

This Certificate is valid until **2029-05-10**.
DNV local unit: **Prague CMC**

Approval Engineer: **Stefan Röhr**

for **DNV**

This document has been digitally signed and will therefore not have handwritten signature
Christian Wildhagen

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.

Particulars of the approval

Forgings for hull structures and equipment

Steel type	Grade [3]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
C and C-Mn	NV F400UW, NV F440UW, NV F480UW, NV F520UW, NV F560UW, NV F600UW	CD, OD	10 000	N, NT, QT
Alloy	NV F550AW, NV F600AW, NV F650AW	CD, OD	10 000	QT

Forgings for shafting and machinery

Steel type	Grade [3]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
C and C-Mn	NV F400U, NV F440U, NV F480U, NV F520U, NV F560U, NV F600U, NV F640U, NV F680U, NV F720U, NV F760U	CD, OD	10 000	N, NT, QT
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	CD, OD	10 000	QT

Stainless steel forgings incl. bolts and nuts

Steel type [4]	Forging method [1]	Max. weight [kg]	Heat treatment condition [2]
Martensitic	CD, OD	4 000	QT

Remarks:

1) OD: Open die forging
   CD: Closed die forging
2) QT: Quenched and tempered
   N: Normalised
   NT: Normalised and tempered
3) Incl. equivalent grades in acc. to other standards
4) Stainless steel forgings shall be in accordance with recognized standards, e.g. EN 10222, ASTM A473/A965/A1049 and JIS G 3214, provided that supplementary requirements contained herein are also met. Recognition of other standards is subject to submission to the Society for evaluation.