

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001YG
Revision No:
1

This is to certify:

That

Motovilikha-Grazhdanskoye Mashinostroyeniye LLC
PERM, Russian Federation

is an approved manufacturer of
Steel Forgings

in accordance with
DNV GL rules for classification – Ships
DNV GL offshore standards

and the following particulars:

Application area	Forgings for hull structures and equipment Forgings for shafting and machinery
Steel type(s)	Carbon and Carbon-Manganese, Alloy
Forging method	Open die forging
Max. weight	See page 2
Heat treatment condition	See page 2
Remarks	Including Steelmaking process

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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2018-11-22**

for **DNV GL**

This Certificate is valid until **2021-10-31**.

DNV GL local station: **St. Petersburg**

Approval Engineer: **Stefan Röhr**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-009338-1**
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Particulars of the approval

Forgings for hull structures and equipment

Steel type	Grade ^{3) 4)}	Forging method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL F400UW, VL F440UW, VL F480UW, VL F520UW, VL F560UW, VL F600UW	OD	6 400	N, NT, QT
Alloy	VL F550AW, VL F600AW, VL F650AW	OD	6 400	N, NT, QT

Forgings for shafting and machinery

Steel type	Grade ^{3) 4)}	Forging method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL F400U, VL F440U, VL F480U, VL F520U, VL F560U, VL F600U, VL F640U, VL F680U, VL F720U, VL F760U	OD	6 400	N, NT, QT
Alloy	VL F600A, VL F700A, VL F800A, VL F900A, VL F1000A, VL F1100A	OD	6 400	N, NT, QT

Remarks:

- 1) OD: Open die forging
- 2) QT: Quenched and tempered; N: Normalised; NT: Normalised and tempered
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules
- 4) Including equivalent grades to other standards

Special conditions:

Including Steelmaking process