



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
AMMM000032M

This is to certify:

That

**DMI Co., Ltd.**

**33 Saneopdanji-ro 27beon-gil Sabong-myeon Jinju-si, Gyeongsangnam-do ,  
Republic of Korea**

is an approved manufacturer of  
**Heat treatment**

in accordance with

**DNV rules for classification – Ships**

**DNV class programme – DNV-CP-0351 Manufacture of heat treated products - heat treatment workshop**

and the following particulars:

<b>Application area</b>	<b>Heat treatment workshop</b>
<b>Heat treatment process</b>	<b>See page 2</b>
<b>Product type</b>	<b>Forgings for gears and shafts</b>
<b>Steel type</b>	<b>Alloy</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. thickness/diameter</b>	<b>See page</b>
<b>Remarks</b>	<b>Approved as Independent Heat Treatment Company</b>

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 **2023-08-10**

This Certificate is valid until **2026-08-09**.

DNV local unit: **Gimhae Station**

Approval Engineer: **Dechun Lou**



for DNV

Digitally Signed By: Wildhagen, Christian

Location: DNV Hamburg, Germany

Signing Date: 11.08.2023, on behalf of

**Thorsten Lohmann**  
**Head of Section**

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 300,000 USD.



Form code: AM 311

Revision: 2022-12

www.dnv.com

Page 1 of 2



Job Id: 263.11-012658-1  
Certificate No: AMMM000032M

**Particulars of the approval**

**Approval scope for Heat Treatment Workshop**

Item	Description
Product Type	Forgings for gears
Steel Type	Alloy (using of material JIS G4053 SCM420 to qualify NV F700A)
Max. Loading Weight	1 000 kg
Max. Product Thickness	133 mm
Heat Treatment Type	Case hardening (Carburizing, quenching and tempering)
Furnace Details	Furnace type: Batch and ID No.5 Working zone dimension: 1220 x 760 x 800 (LxWxH, mm) Heating source: Electricity
Heat Treatment Procedures	Doc. No. DMI-HT-C01 Rev 1 dtd. 2023.06.01
Temperature Uniformity Survey Procedure	DMI-TUS-01 Rev 1 dtd. 2023-04-24

Item	Description
Product Type	Forgings for shafts
Steel Type	Alloy (Using of material JIS G4053 SCM440 to qualify NV F900A)
Max. Loading Weight	100 kg
Max. Product Diameter	160 mm
Heat Treatment Type	Induction hardening
Furnace Details	Type: Induction coil, ID: I-01 Working zone dimension: Not applicable Heating source: Electricity
Heat Treatment Procedure	Doc. No. DMI-HT-I01 Rev 1 dtd. 2023.06.01