

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: AMMM00000HG Revision No: 2

This is to certify:

That Mandal Castings AS Støperiveien 13, 4517 Mandal, Norway

is an approved manufacturer of **Iron Castings**

in accordance with DNV rules for classification – Ships

and the following particulars:

Iron type	Grey cast iron,		
	Nodular cast iron		
Casting method	Sand casting		
Max. weight	6 500 kg		
Max. wall thickness	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 2022-07-04

This Certificate is valid until **2025-06-01**. DNV local station: **Kristiansand S**

Approval Engineer: Andreas Koch

for DNV

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.





Particulars of the approval

Cast iron

Iron type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Grey	200	SC	6 500	1 000	AC
	250	SC	6 500	1 000	AC
	300	SC	6 500	1 000	AC
	350	SC	6 500	1 000	AC
Nodular	NV NCI-1	SC	6 500	1 000	AC
	NV NCI-2	SC	6 500	1 000	AC
	NV NCI 370	SC	6 500	1 000	AC
	NV NCI 400	SC	6 500	1 000	AC
	NV NCI500-7	SC	6 500	1 000	AC
	NV NCI600-3	SC	6 500	1 000	AC
	NV NCI 700	SC	6 500	1 000	AC
	NV NCI 800	SC	6 500	1 000	AC

Remarks:

¹⁾ SC: Sand casting

²⁾ AC: As cast

³⁾ Incl. equivalent grades in acc. to other standards