



Marine & Offshore
Division

Certificate number: 47344/A0 BV

File number: MAT 1354-2016

Product code: 90071

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

NLMK DANSTEEL A/S

Frederiksværk - DENMARK

for the type of product

HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades, AH32/AH36/AH40; DH32/DH36/DH40;
EH32/EH36/EH40; FH32/FH36 including Z25 and Z35 grades.

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 29 Nov 2021

For BUREAU VERITAS,

At BV FREDERICIA, on 29 Nov 2016,

Jesper Jensen



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 1533 October 2014

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Hot rolled steel plates

Steel grade(1)	Deoxydation practice & refining	Delivery conditions
AH32-AH36-AH40 DH32-DH36-DH40 EH32-EH36-EH40	Killed and Al+Nb fine grain treated	Thermo-mechanically rolled (TMCP) with thickness 6mm to 60mm
AH32-AH36-AH40 DH32-DH36-DH40 EH32-EH36-EH40 FH32-FH36	Killed and Al+Nb+V+Ti fine grain treated	Thermo-mechanically rolled (TMCP) with thickness 6mm to 60mm

(1) All grades are with Z25 or Z35 through thickness properties additional grades.

Steel making by Basic Oxygen Converter, Ladle refinement and/or Vacuum Degassing, Continuous Casting, Slab production in NLMK steel plant - Lipetsk. Hot rolling operations carried out at NLMK steel plant - Frederiksværk.

2. DOCUMENTS AND DRAWINGS :

- "Approval application for NLMK DanSteel A/S weldability qualification testing to BV rules" Revision No.1 issued by NLMK DanSteel A/S and dated October 2015.

3. TEST REPORTS :

- "Approval application for NLMK DanSteel A/S weldability qualification testing to BV rules" Revision No.1 dated October 2015, and, "NLMK Dan Steel BV weldability report FH40 in 60mm" Rev.2 - Appendix D dated year 2016 issued by NLMK DanSteel A/S.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification. Slab supplied by NLMK steel plant - Lipetsk.

5. PRODUCTION SURVEY REQUIREMENTS :

The steel plates are to be supplied by NLMK Dansteel A/S in compliance with the type and the requirements described in this certificate. This type of product is within the category IBV of Bureau Veritas Rule Note NR320. BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification. In addition to the material grade designation, products are to be marked with the symbol Z25 or Z35 as applicable.

7. OTHERS :

Nil.

*** END OF CERTIFICATE ***