

No. : 21EW1068ROL

Date : 17 June 2021

Korea Steel Co., Ltd. (Noksan Works)

84, Noksansandan 407-ro,  
Gangseo-gu, Busan,  
Korea

Approval of Manufacturing Process of Rolled Steels

Dear Sirs,

This is to inform that the captioned manufacturing process has been approved.

Enclosed please find the certificate of approval, particulars of approval and invoice.

Due to issuing the attached certificate, you are kindly requested to return the previous certificate (Certificate No. TA16577E) and particulars (No. TA16578E, TA16579E) to NK Busan office.

We appreciate the opportunity to work with your company.

Yours faithfully,

Y. Takao  
General Manager  
Material and Equipment Department

Encl.:

- (1) Certificate of Approval (TA21660E)
- (2) Particulars of approval (TA21661E, TA21662E)
- (3) Questionnaire for ClassNK Service

Cc: NK Busan office



Approval No. ST134RO

Certificate No. TA21660E

**APPROVAL OF MANUFACTURING PROCESS**

*This is to certify that*

**Korea Steel Co., Ltd. (Noksan Works)  
Gangseo, Busan  
Korea**

*has been approved for the manufacturing process of undermentioned materials by the NIPPON KAIJI KYOKAI in accordance with the requirements of 1.2, Part K of the Society's "Rules for the Survey and Construction of Steel Ships" and Chapter 1, Part 1 of the Society's "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use".*

**MATERIALS : Rolled Steels for Hull**

The details of the relevant approval conditions are given in the PARTICULARS OF APPROVAL listed in the reverse of this certificate.

The products for the ships classed with the Society are to be manufactured, tested and inspected in compliance with the Rules.

This certificate is valid from 30 May 2021 until 29 May 2026.

Issued at Tokyo on 17 June 2021.

  
Y. Takao  
General Manager  
Material and Equipment Department



No. : TA21662E

Date : 17 June 2021

## PARTICULAR OF APPROVAL

### Approval Conditions for Manufacturing Process of Rolled Steels for Hull

1. Manufacturer : Korea Steel Co., Ltd. (Noksan Works)
2. Kind of Product : Flat bars
3. Grade : KA, KA32 and KA36
4. Deoxidation Practice : See Table
5. Grain Refining Elements : See Table
6. Max. Thickness : See Table
7. Condition of Supply : AR
8. Remarks : Steel billets manufactured by Korea Steel Co., Ltd. (Chilseo Works) approved by the Society are to be used.

(to be cont.)



No. : TA21662E

Date : 17 June 2021

Table Part of Approval Conditions

Grade	Deoxidation Practice	Grain Refining Elements	Max. Thickness (mm)
KA	Killed	Not Applicable	30
KA32 KA36	Fine-grain Killed	Al-V	30

  
Y. Takao  
General Manager  
Material and Equipment Department



No. : TA21661E

Date : 17 June 2021

## PARTICULAR OF APPROVAL

### Approval Conditions for Manufacturing Process of Rolled Steels for Hull

1. Manufacturer : Korea Steel Co., Ltd. (Noksan Works)
2. Kind of Product : Shapes
3. Grade : KA, KA32 and KA36
4. Deoxidation Practice : See Table
5. Grain Refining Elements : See Table
6. Max. Thickness : See Table
7. Condition of Supply : AR
8. Remarks : Steel billets manufactured by Korea Steel Co., Ltd. (Chilseo Works) approve by the Society are to be used.

(to be cont.)

No. : TA21661E

Date : 17 June 2021

Table Part of Approval Conditions

Grade	Deoxidation Practice	Grain Refining Elements	Max. Thickness (mm)
KA	Killed	Not Applicable	15
KA32 KA36	Fine-grain Killed	Al-V	15



Y. Takao  
General Manager  
Material and Equipment Department

