



Marine &amp; Offshore

Certificate number: 14546/E0 BV

File number: MAT 11240

Product code: 9015I

*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*

**SeAH Besteel Corporation**  
Jeollabuk-do - KOREA (REPUBLIC OF)

*for the type of product*

## ROLLED PRODUCTS FOR MACHINERY AND EQUIPMENT

Hot rolled round bars in carbon steels and low alloy steels.

### Requirements:

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

*This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 13 Aug 2029**

**For Bureau Veritas Marine & Offshore,**

At BV PUSAN, on 13 Aug 2024,

Won-jun JANG

***This certificate was created electronically and is valid without signature***



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 Marine & Offshore. 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 available on the internet site [www.veristar.com](http://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 Marine & Offshore 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.

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION :**

Hot rolled round bars in carbon and alloy steels with maximum diameter 350mm.  
Carbon steels and low alloy steels delivered in Quenched and Tempered or Normalized condition, as applicable.

Typical grades are:

- S58C, S20C and S45C according to JIS G4051 for carbon steels.
- SCM435, SCM440 and SNCM439 according to JIS G4053 for alloy steels.

Steel making by electric arc furnace; Ladle heating furnace, Vacuum degassing and RH. Continuous casting. Bloom section 390x510 mm<sup>2</sup>; Hot rolling followed by appropriate heat treatment.

### **2. DOCUMENTS AND DRAWINGS :**

2.1 - Documents issued by SeAH Besteel Corporation:

- "Approval test report" dated 14 July 2004.
- "Report of type approval test" dated 30 April 2009.
- "Technical documents" dated 20 March 2024.

### **3. TEST REPORTS :**

3.1 - Documents issued by SeAH Besteel Corporation:

- "Approval test report" dated 14 July 2004.
- "Report of type approval test" dated 30 April 2009.
- "Report of type approval test" dated 23 July 2015.

### **4. APPLICATION / LIMITATION :**

Chemical composition, tensile properties and Charpy V-notch requirements are to be as per Bureau Veritas Rules NR216 and/or alternative specification mentioned on the reviewed drawings, as applicable.

### **5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The rolled round bars are to be supplied by SeAH Besteel Corporation in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - For information, SeAH Besteel Corporation has declared to Bureau Veritas the following production site:

**SeAH Besteel Corporation**  
522, Oehang-ro, Gunsan-si  
Jeollabuk-do 573-711 , Korea

### **6. MARKING OF PRODUCT :**

As per Bureau Veritas rules for classification.

### **7. OTHERS :**

This certificate replaces approvals from No.14546/A0 BV to No.14546/D0 BV.

It is SeAH Besteel Corporation's responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

**\*\*\* END OF CERTIFICATE \*\*\***