

# APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP001    **Initial Approval :** 12th April, 2005  
**Product** : Steel Slabs  
**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** Steel Slabs for Rolled Steel Plates for Hull Structures  
Steel Slabs for High Strength Quenched and Tempered Steel Plates for  
Welded Structures

- Steel grades : A, B, D, E, AH32, DH32, EH32, FH32  
                   AH36, DH36, EH36, FH36, AH40, DH40, EH40, FH40  
                   AH43, DH43, EH43, FH43, AH47, DH47, EH47, FH47  
                   AH51, DH51, EH51, FH51, AH56, DH56, EH56, FH56  
                   AH63, DH63, EH63, FH63, AH70, DH70, EH70, FH70
- Steel making : Basic Oxygen Converter
- Casting process : Continuous Casting
- Slab thickness : Max. 320 mm

\* Including No.1 and No.2 Steel Making Workshop

**Approval Condition:** Individual Product Certification is not required.

**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt 2, Ch 1, Art 102 of the Rules for Classification of Steel Ships.

This Certificate is valid until 11th April, 2020  
Reissued at    on 16th August, 2019

**KOREAN REGISTER OF SHIPPING**

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*General Manager of  
Technical Support Team*

*Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.  
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.*



## APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP002                      **Initial Approval** : 9th October, 2007  
**Product** : Rolled Steels  
**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** Rolled Steel Plates for Hull Structures

- Grade : A(Z), B(Z), D(Z), E(Z)  
AH32(Z), DH32(Z), EH32(Z), FH32(Z)  
AH36(Z), DH36(Z), EH36(Z), FH36(Z)  
AH40(Z), DH40(Z), EH40(Z), FH40(Z)
- Supply condition : See "Appendix 1"

**Approval Condition:** Individual Product Certification is required.

**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt 2, Ch 1, Art 301 of the Rules for Classification of Steel Ships.

This Certificate is valid until 8th October, 2022

Issued at Shanghai, China on 29th November, 2017



KOREAN REGISTER OF SHIPPING

*[Signature]*  
General Manager of  
Technical Support Team  
CHINA KR Co., Ltd.

- Note:*
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## APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP003                      **Initial Approval** : 24th September, 2013  
**Product** : Rolled Steels  
**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** High Strength Quenched and Tempered Steels for Welded Structures

- Grade : AH43 (Z), DH43 (Z), EH43 (Z), FH43 (Z)  
AH47 (Z), DH47 (Z), EH47 (Z), FH47 (Z)  
AH51 (Z), DH51 (Z), EH51 (Z), FH51 (Z)  
AH56 (Z), DH56 (Z), EH56 (Z), FH56 (Z)  
AH63 (Z), DH63 (Z), EH63 (Z), FH63 (Z)  
AH70 (Z), DH70 (Z), EH70 (Z), FH70 (Z)
- Steel making : Basic Oxygen Converter
- Casting process : Continuous Casting
- Grain refining : Al+Nb+Ti
- Thickness : Max. 100 mm
- Supply condition : Quenched and Tempered

**Approval Condition:** Individual Product Certification is required.

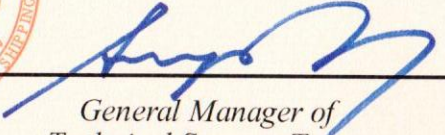
**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt 2, Ch 1, Art 308 of the Rules for Classification of Steel Ships.

This Certificate is valid until 23rd September, 2023  
Issued at Shanghai, China on 28th November, 2018



**KOREAN REGISTER OF SHIPPING**

  
General Manager of  
Technical Support Team  
CHINA KR Co., Ltd.

- Note:*
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# APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP004 **Initial Approval :** 25th December, 2015

**Product** : Rolled Steel Plates for Hull

**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** Extremely Thick Steel Plates for Container Carriers  
(Brittle Crack Arrest steels)

- Grade : AH40-H, DH40-H and EH40-H (Including Z25/Z35)
- Steel making : Basic oxygen furnace
- Casting process : Continuous casting
- Deoxidation : Fine grained
- Grain refining : Al+Nb+V+Ti
- Thickness range : 50 ~ 85 mm
- Supply condition: TMCP

**Approval Condition:** Individual Product Certification is required.

**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt. 2, Ch. 1, Art. 311. of the Rules for Classification of Steel Ships.

This Certificate is valid until 24th December, 2020

Reissued at on 16th August, 2019

**KOREAN REGISTER OF SHIPPING**

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*General Manager of  
Technical Support Team*

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# APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP005 **Initial Approval :** 30th November, 2015

**Product** : Rolled Steels

**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** Extremely Thick Steel Plates for Container Carriers  
(Brittle Crack Arrest steels)

- Grade : AH47-H, DH47-H and EH47-H (Including Z25/Z35)
- Steel making : Basic oxygen furnace
- Casting process : Continuous casting
- Deoxidation : Fine grained
- Grain refining : Al+Nb+V+Ti
- Thickness range : 50 ~ 80 mm
- Supply condition: TMCP

**Approval Condition:** Individual Product Certification is required.

**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt. 2, Ch. 1, Art. 311. of the Rules for Classification of Steel Ships.

This Certificate is valid until 29th November, 2020

Reissued at on 16th August, 2019

**KOREAN REGISTER OF SHIPPING**

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*General Manager of  
Technical Support Team*

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# APPROVAL CERTIFICATE FOR MANUFACTURING PROCESS

**Certificate No.** : SHI18031-SP007 **Initial Approval :** 9th November, 2016

**Product** : Rolled Steels

**Manufacturer** : Jiangsu Shagang Group Co., Ltd.  
Jinfeng Town, Zhangjiagang City, Jiangsu Province, 215625, P.R.China

**Product Description:** Rolled Steel Plates for Low temperature Service

- Grade : RL235A (Z), RL235B (Z), RL325A (Z),  
RL325B (Z), RL360 (Z)
- Steel making : Basic oxygen furnace
- Casting process : Continuous casting
- Grain refining : Al+Nb+Ti
- Thickness range : Max. 40 mm
- Supply condition : TMCP

**Approval Condition:** Individual Product Certification is required.

**THIS IS TO CERTIFY** that the manufacturing process for the above mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturer and Type Approved Equipment".

Pt. 2, Ch. 1, Art. 304. of the Rules for Classification of Steel Ships.

This Certificate is valid until 8th November, 2021

Reissued at on 16th August, 2019

**KOREAN REGISTER OF SHIPPING**

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