



Approval No. ST43RO Certificate No. TA18642E

APPROVAL OF MANUFACTURING PROCESS

This is to certify that

SeAH Besteel Corporation Gunsan, Jeollabuk 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 : Round Bars for Chains Rolled Steel Bars for Machine Structures

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 1 July 2018 until 30 June 2023. Issued at Tokyo on 2 July 2018.

Renewal Date: 1 July 2018

H. Kobayashi General Manager

Material and Equipment Department



List of PARTICULARS OF APPROVAL

	Ref. No.	Date	
1.	TA18643E	2 JUL.	2018
2.	TA18644E	2 JUL.	2018

No. : TA18643E

Date : 2 July 2018

PARTICULARS OF APPROVAL

Approval Conditions for Manufacturing Process of Round Bars for Chains

1. Manufacturer

: SeAH Besteel Corporation

2. Kind of Product

Round Bars

3. Grades

: KSBC70

4. Deoxidation Practice

Fine-grained Killed

5. Grain Refining Elements

: Al

6. Max. Diameter

: 130mm

7. Condition of Supply

QT

8. Steel Making Process

Electric Arc Furnace

9. Casting Process

Continuous Casting or Ingot Casting

H. Kobayashi

General Manager

Material and Equipment Department

No. : TA18644E

Date : 2 July 2018

PARTICULARS OF APPROVAL

Approval Conditions for Manufacturing Process of Rolled Steel Bars for Machine Structures

1. Manufacturer : SeAH Besteel Corporation

2. Kind of Product : Round Bars and Square Bars

3. Grades : See Table

4. Max. Dimension : See Table

5. Condition of Supply QT

6. Steel Making Process : Electric Arc Furnace

7. Casting Process See Table

Table Part of Approval Conditions

Grades	Casting Process	Max. Dimension (mm)	
	Continuous Casting	ϕ 300	
IZCEDCO		300×300	
KSFR60		$(Thickness \times Width)$	
	Ingot Casting	$\phi 200$	
	Continuous Casting	φ 300	
IZCEA DOE		300×300	
KSFAR85		$(Thickness \times Width)$	
	Ingot Casting	$\phi 200$	

H. Kobayashi

General Manager

Material and Equipment Department