



NIPPON KAIJI KYOKAI

Certificate

OF

TYPE APPROVAL

Approval No. NKY-2290
Certificate No. TA19964E

Article: Welding Consumables for High Tensile Steels for Hull
 Brand: CSF-71T
 Applicant: Chosun Welding Co., Ltd., Onsan Plant
 Ulju-gun, Ulsan, Korea
 Manufacturer: Chosun Welding Co., Ltd., Onsan Plant
 Ulju-gun, Ulsan, Korea
 Grade: KSW52G(C)H10
 KSW52Y40G(C)H10
 Welding Process: Semi-Automatic Welding (MAG Welding)
 Welding Positions and Max. Diameter of Wire: See Table 1
 Current: DCEP
 Shielding Gas: CO₂
 Remarks: For annual inspection, mechanical properties are to comply with
 the requirements specified in Table 2.

Table 1 Welding Positions and Max. Diameter of Wire for Both Grades

Butt Weld		Fillet Weld	
Flat:	1.6mm	Flat:	1.6mm
Horizontal:	1.6mm	Horizontal Vertical:	1.6mm
Overhead:	1.6mm	Horizontal:	1.6mm
Vertical Upward:	1.6mm	Horizontal Overhead:	1.6mm
Vertical Downward:	1.6mm	Overhead:	1.6mm
		Vertical Upward:	1.6mm
		Vertical Downward:	1.6mm

THIS IS TO CERTIFY that the above mentioned welding consumable has been approved by the NIPPON KAIJI KYOKAI in accordance with the requirements of the Society's Rules.

This Certificate will remain in force until 19 September 2019.

Issued at Tokyo on 29 May 2019.


 H. Kobayashi
 General Manager
 Material and Equipment Department




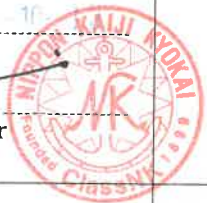

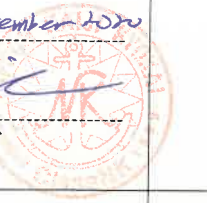




Note : The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.

Certificate No. TA19964E

Table 2 Mechanical Properties
Deposited Metal Test

Tensile Test			Impact Test	
Tensile strength (N/mm ²)	Yield point (N/mm ²)	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
510 ~ 660	400 min.	22 min.	0	47

Note: This certificate was rewritten because of addition of grade of welding consumable.

<p>The validity of this certificate has been renewed until <u>19. September. 2020</u> .</p> <p>Date: <u>2019 10</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>19 September 2021</u> .</p> <p>Date: <u>19 September 2021</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>2021. 09. 19</u> .</p> <p>Date: <u>2021. 09. 15</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>19 September 2023</u> .</p> <p>Date: <u>2022 .09 .05</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>