



NIPPON KAIJI KYOKAI

Certificate

OF

TYPE APPROVAL

Approval No. NKY-3537
Certificate No. TA21775E

Article: Welding Consumables for High Tensile Steels for Hull
Brand: Dual Shield II 81-Ni2LH
Applicant: ESAB SeAH Corp.
Changwon, Gyeongnam, Korea
Manufacturer: ESAB SeAH Corp.
Changwon, Gyeongnam, Korea
Grade: KSW54Y40G(C)H5
KSW54Y40G(C)H5-vE47M-60T
KSW54Y40G(C)H5-vE27M-72T
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 All Grades

Butt Weld		Fillet Weld	
Flat:	1.4mm	Flat:	1.4mm
Horizontal:	1.4mm	Horizontal Vertical:	1.4mm
Overhead:	1.4mm	Horizontal:	1.4mm
Vertical Upward:	1.4mm	Horizontal Overhead:	1.4mm
Vertical Downward:	1.4mm	Overhead:	1.4mm
		Vertical Upward:	1.4mm
		Vertical Downward:	1.4mm

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 11 July 2022.

Issued at Tokyo on 12 July 2021.


Y. Takao
General Manager
Material and Equipment Department





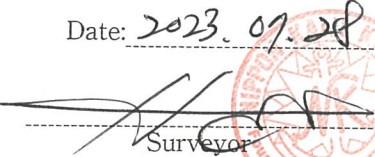
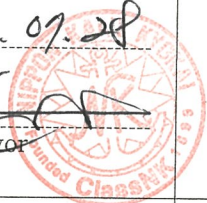


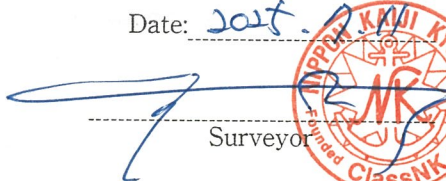

Note : The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.

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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 ~ 690	400 min.	22 min.	-40	47
			-60	47
			-72	27

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<p>The validity of this certificate has been renewed until <u>2023.07.11</u> .</p> <p>Date: <u>2023.08.24</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>2024.07.11</u> .</p> <p>Date: <u>2023.07.28</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>2025.09.11</u> .</p> <p>Date: <u>2024.09.16</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>2026.07.11</u> .</p> <p>Date: <u>2025.07.11</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>