



# NIPPON KAIJI KYOKAI

## *Certificate*

*OF*

*TYPE APPROVAL*

Approval No. NKY-2380  
Certificate No. TA20859E

Article: Welding Consumables for High Tensile Steels for Hull and Steels for Low Temperature Service

Brand: DW-55L

Applicant: Kobelco Welding of Korea Co., Ltd.  
Changwon-si, Gyeongsangnam-do, Korea

Manufacturer: Kobelco Welding of Korea Co., Ltd.  
Changwon-si, Gyeongsangnam-do, Korea

Grade: KSWL3G(C)H5  
KSW54Y40G(C)H5  
KSWL3G(C)H5-TS540M

Welding Process: Semi-Automatic Welding (MAG Welding)

Welding Positions and Max. Diameter of Wire: See Table 1

Current: DCEP


Shielding Gas: CO<sub>2</sub>

Remarks: For annual inspection, mechanical properties are to comply with the requirements specified in Table 2.

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 29 July 2021.  
Issued at Tokyo on 28 May 2020.



  
Y. Takao  
General Manager  
Material and Equipment Department

Note : (1) The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.  
(2) This certificate was rewritten because of change of the applicant's name and the manufacturer's name.



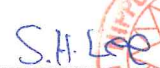
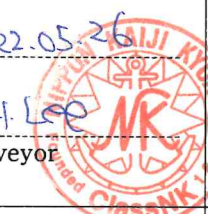



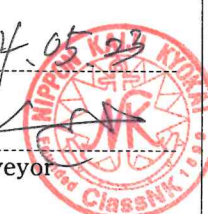
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Table 1 Welding Positions and Max. Diameter of Wire for All Grades

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

Table 2 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
Tensile strength (N/mm <sup>2</sup> )	Yield point (N/mm <sup>2</sup> )	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
540~660	400 min.	22 min.	-60	47

<p>The validity of this certificate has been renewed until <u>2022 .07. 29</u> .</p> <p>Date: <u>2021 .03. 31</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>2023 .07. 29</u> .</p> <p>Date: <u>2022.05.26</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. 29</u> .</p> <p>Date: <u>2023 .06. 08</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 .07. 29</u> .</p> <p>Date: <u>2024 .05. 23</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>