



## NIPPON KAIJI KYOKAI

*Certificate*

OF

## TYPE APPROVAL

Approval No. NKY-2226  
Certificate No. TA201173E


Article: Welding Consumables for High Tensile Steels for Hull and Steels for Low Temperature Service  
Brand: MX-55LF  
Applicant: Kobe Steel, Ltd., Ibaraki Plant  
Ibaraki, Osaka, Japan  
Manufacturer: Kobe Steel, Ltd., Ibaraki Plant  
Ibaraki, Osaka, Japan  
Grade: KSW54G(C)  
KSWL3G(C)  
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>  
Remark: 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:	Not Applicable	Flat:	1.6mm
Horizontal:	Not Applicable	Horizontal Vertical:	1.6mm
Overhead:	Not Applicable	Horizontal:	Not Applicable
Vertical Upward:	Not Applicable	Horizontal Overhead:	Not Applicable
Vertical Downward:	Not Applicable	Overhead:	Not Applicable
		Vertical Upward:	Not Applicable
		Vertical Downward:	Not Applicable

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 26 October 2020.  
Issued at Tokyo on 8 October 2020.

  
Y. Takao  
General Manager  
Material and Equipment Department

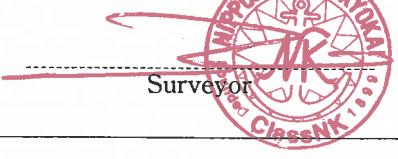


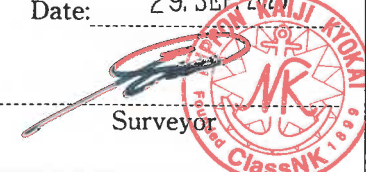
Note : (1) The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.  
(2) The certificate was rewritten because of change of Welding positions of Wire.

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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)
490~660	375 min.	22 min.	-40	47
			-60	34

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<p>The validity of this certificate has been renewed until <u>26. OCT. 2021</u> .</p> <p>Date: <u>28. SEP. 2020</u></p> <p> <u>                    </u> 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>26. OCT. 2022</u> .</p> <p>Date: <u>27. SEP. 2021</u></p> <p> <u>                    </u> 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>26. OCT. 2023</u> .</p> <p>Date: <u>26. SEP. 2022</u></p> <p> <u>                    </u> 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>26. OCT. 2024</u> .</p> <p>Date: <u>29. SEP. 2023</u></p> <p> <u>                    </u> Surveyor</p>	<p>The validity of this certificate has been renewed until _____ .</p> <p>Date: _____</p> <p>_____ Surveyor</p>
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