NIPPON KAIJI KYOKAI

Certificate

OF

TYPE APPROVAL

Approval No. NKY-2376
Certificate No. TA2251E

Article:	Welding Consumables for High Tensile Steels for Hull and Steels for Low Temperature Service
Brand:	DW-55L
Applicant:	Kobe Steel Ltd., Ibaraki Plant 2-19, Higashi-Unobe-Cho, Ibaraki, Osaka, Japan
Manufacturer:	Kobe Steel Ltd., Ibaraki Plant 2-19, Higashi-Unobe-Cho, Ibaraki, Osaka, Japan
Grade:	KSWL3G(C)H5 KSWL3G(C)H5-TS540M KSWL3G(C)H5-vE27M-63T KSWL3G(C)H5-vE27M-65T KSW54Y40G(C)H5
Welding Process:	Semi-Automatic Welding (MAG Welding)
Welding Positions and Max. Diameter of Wire:	See Table 1 and Table 2
Current:	DCEP
Shielding Gas:	CO_2
Remarks:	For annual inspection, mechanical properties are to comply with the requirements specified in Table 3.

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 December 2022.
Issued at Tokyo on 6 December 2021.

Y. Takao
General Manager
Material and Equipment Department

Notes : (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 addition of grade of welding consumables.

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Table 1 Welding Positions and Max. Diameter of Wire for KSWL3G(C)H5, KSWL3G(C)H5-TS540M, KSWL3G(C)H5-vE27M-63T and KSW54Y40G(C)H5

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

Table 2 Welding Positions and Max. Diameter of Wire for KSWL3G(C)H5-vE27M-65T

Butt Weld		Fillet Weld	
Flat:	1.2mm	Flat:	1.2mm
		Horizontal Vertical:	1.2mm
Horizontal:	1.2mm	Horizontal:	1.2mm
Overhead:	1.2mm	Horizontal Overhead:	1.2mm
		Overhead:	1.2mm
Vertical Upward:	1.2mm	Vertical Upward:	1.2mm
Vertical Downward:	1.2mm	Vertical Downward:	1.2mm

Table 3 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
Tensile strength (N/mm^2)	Yield point (N/mm^2)	Elongation (%)	Testing temperature (℃)	Minimum mean absorbed energy (J)
540～660	400 min.	22 min.	-40	47
			-60	34
			-65	27

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The validity of this certificate has been renewed until 26. DEC. 2023. Date: 27. JUN. 2023 Surveyor	The validity of this certificate has been renewed until . Date: Surveyor
The validity of this certificate has been renewed until 26. DEC. 2024. Date: 26. JUN. 2024 Surveyor	The validity of this certificate has been renewed until . Date: Surveyor
The validity of this certificate has been renewed until 26. DEC. 2025. Date: 21. JUN. 2024 Surveyor	The validity of this certificate has been renewed until . Date: Surveyor
The validity of this certificate has been renewed until . Date: Surveyor	The validity of this certificate has been renewed until . Date: Surveyor
The validity of this certificate has been renewed until . Date: Surveyor	The validity of this certificate has been renewed until . Date: Surveyor