



# NIPPON KAIJI KYOKAI

Approval No. NKY-3074  
Certificate No. TA201074E

## *Certificate* OF TYPE APPROVAL

Article: Welding Consumables for High Tensile Steels for Hull  
Brand: DW-110EV / FB-B3  
[Wire / Backing]  
Applicant: Kobelco Welding of Qingdao Co., Ltd.  
Qingdao, Shandong, China  
Manufacturer: Kobelco Welding of Qingdao Co., Ltd.  
Qingdao, Shandong, China  
Grade: KSW53G(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>

Table 1 Welding Positions and Max. Diameter of Wire


| Butt Weld          |                | Fillet Weld          |                |
|--------------------|----------------|----------------------|----------------|
| Flat:              | 1.4mm          | Flat:                | 1.4mm          |
| Horizontal:        | 1.4mm          | Horizontal Vertical: | 1.4mm          |
| Overhead:          | Not Applicable | Horizontal:          | 1.4mm          |
| Vertical Upward:   | 1.4mm          | Horizontal Overhead: | Not Applicable |
| Vertical Downward: | Not Applicable | Overhead:            | Not Applicable |
|                    |                | Vertical Upward:     | 1.4mm          |
|                    |                | 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.



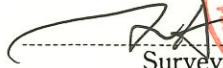





This Certificate will remain in force until 27 February 2021.

Issued at Tokyo on 16 September 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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|---|---|
| <p>The validity of this certificate has been renewed<br/>until <u>20 November 2021</u> <del>(27 February 2022)</del> .</p> <p>Date: <u>20 November 2020</u></p> <p><br/>Surveyor</p>  | <p>The validity of this certificate has been renewed<br/>until <u>20 November 2022</u> .</p> <p>Date: <u>19 November 2021</u></p> <p><br/>Surveyor</p>   |
| <p>The validity of this certificate has been renewed<br/>until <u>20 November 2023</u> .</p> <p>Date: <u>18 November 2022</u></p> <p><br/>Surveyor</p>                                | <p>The validity of this certificate has been renewed<br/>until <u>20 November 2024</u> .</p> <p>Date: <u>17 November 2023</u></p> <p><br/>Surveyor</p>  |
| <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   | <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   |
| <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   | <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   |
| <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   | <p>The validity of this certificate has been renewed<br/>until _____ .</p> <p>Date: _____</p> <p>_____<br/>Surveyor</p>   |