RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Welding

Part M

RULES

2022 AMENDMENT NO.1

Rule No.8927 December 2022Resolved by Technical Committee on 27 July 2022

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance. Rule No.89 27 December 2022

AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Rules for the survey and construction of steel ships" has been partly amended as follows:

Part M WELDING

Chapter 4 WELDING PROCEDURE AND RELATED SPECIFICATIONS

4.2 Tests for Butt Welded Joints

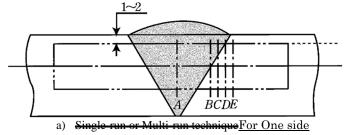
4.2.7 Impact Tests*

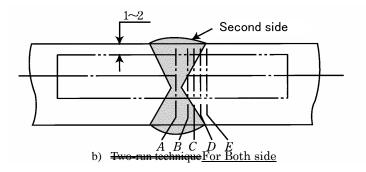
1 Impact test specimens are to be *U*4 specimens shown in **Table K2.5** and to be taken from the position shown in **Fig. M4.2** to **Fig. M4.4**. Where *U*4 impact test specimens cannot be taken because of the convenience of material, the requirements in sub-paragraphs **2.2.4-4** and **2.3.2-2** in **Part K of the Rules** is to be applied.

2 The number of specimens taken from each test assembly and the position of notch for the specimen are to be as shown in **Table M4.6** and **Fig. M4.2** to **Fig. M4.4**. The longitudinal direction of the notch of the test specimen is to be in the direction of the thickness of test material. (-3 to -7 are omitted.)

Fig. M4.4 has been amended as follows.

Fig. M4.4Positions of Notch for Impact Test Specimens for Rolled Steel for Low
Temperature Service and Steel Pipes for Low Temperature Service (Unit: *mm*)





Notch location: A: Center of weld "WM" B: On fusion line "FL" C: In HAZ, 1 *mm* from fusion line D: In HAZ, 3 *mm* from fusion line E: In HAZ, 5 *mm* from fusion line

EFFECTIVE DATE AND APPLICATION

- 1. The effective date of the amendments is 27 December 2022.
- 2. Notwithstanding the amendments to the Rules, the current requirements apply to welding procedures for which the application for approval is submitted to the Society before the effective date.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part M

Welding

2022 AMENDMENT NO.2

Notice No.6427 December 2022Resolved by Technical Committee on 27 July 2022

Notice No.64 27 December 2022 AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

"Guidance for the survey and construction of steel ships" has been partly amended as follows:

Part M WELDING

Amendment 2-1

M7 has been added as follows.

M7 Non-Destructive Testing Service Suppliers

M7.1 General

M7.1.1 Application

For requirements specified in this chapter which are covered by the certificate issued to suppliers by the Japan Welding Engineering Society (JWES) in accordance with WES 8701 "Standard for certification of nondestructive inspection corporation for welded structures", the Society may regard such suppliers as satisfying the corresponding requirements in this chapter when confirming compliance with this chapter.

FFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 27 December 2022.

Amendment 2-2

M4 WELDING PROCEDURE AND RELATED SPECIFICATIONS

M4.2 Tests for Butt Welded Joints

Paragraph M4.2.2 has been amended as follows.

M4.2.2 Kinds of Test

As for the welding of aluminium alloys, imperfections detected by visual or non-destructive testing are to be assessed in accordance with *ISO* $10042(\frac{2005}{2005}):2018$, Level *B*, except for excess weld metal or convexity, excess throat thickness and excess of penetration for which Level *C* applies.

M4.3 Tests for Fillet Weld Joints

Paragraph M4.3.2 has been amended as follows.

M4.3.2 Kinds of Test

As for welding of aluminium alloys, imperfections detected by visual or non-destructive testing are to be assessed in accordance with *ISO* $10042(\frac{2005}{2005}):2018$, Level *B*, except for excess weld metal or convexity, excess throat thickness and excess of penetration for which Level *C* applies.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

- **1.** The effective date of the amendments is 1 January 2023.
- 2. Notwithstanding the amendments to the Guidance, the current requirements apply to welding procedures for which the application for approval is submitted to the Society before the effective date.

Amendment 2-3

M6 WELDING CONSUMABLES

M6.2 Electrodes for Manual Arc Welding for Mild and High Tensile Steels and Steels for Low Temperature Service

M6.2.11 Hydrogen Test

Sub-paragraph -1 has been amended as follows.

1 The glycerin method or the mercury method or the gas chromatography method specified in **6.2.11-1, Part M of the Rules** is to be in accordance with the followings.

- ((1) is omitted.)
- (2) Mercury method

Mercury method is to be in accordance with the requirements in ISO 3690:2018.

(3) Gas chromatography method

Gas chromatography method is to be in accordance with the requirement in <u>*ISO* 3690:2018 or</u> JIS Z 3118 (Method of Measurement for Hydrogen Evolved from Steel Welds <u>based on ISO</u> <u>3690:2018</u>).

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

- 1. The effective date of the amendments is 1 January 2023.
- 2. Notwithstanding the amendments to the Guidance, the current requirements apply to welding consumables for which the application for approval is submitted to the Society before the effective date.