

Range of Approval of Welding Procedures and Related Specifications

Object of Amendment

Rules for the Survey and Construction of Steel Ships Part M

Reason for Amendment

Chapter 4 of Part M of the Rules for the Survey and Construction of Steel Ships specifies requirements for welding procedures and related specifications which state the mechanical properties of welded joints are to be evaluated using test assemblies based on the representative welding conditions described in welding procedure specifications.

Since the welding thermal history of multi-run techniques is different from that of single-run techniques, the impact of thermal history on the mechanical properties of each type of technique is also different. For this reason, when a test is conducted using test assemblies prepared by multi-run techniques, a welding procedure specification for multi-run techniques is approved, and when additional approval is obtained for single-run techniques (including for welding on one side only or on both sides), a separate test is to be performed.

Accordingly, relevant requirements are amended to clearly specify the above treatment.

Outline of the Amendment

Clarify that welding procedures approved using multi-run technique are not to be applied to single-run technique.

Effective Date and application

This amendment applies to tests for which the application is submitted to the Society on or after the date of establishment.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DH24-13

Amended-Original Requirements Comparison Table (Range of Approval of Welding Procedure and Related Specifications)

Amended	Original	Remarks
<p>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p>Part M WELDING</p> <p>Chapter 4 WELDING PROCEDURE AND RELATED SPECIFICATIONS</p> <p>4.1 General</p> <p>4.1.3 Execution of Tests*</p> <p>1 For the approval of welding procedure and related specifications, the tests specified in 4.2 to 4.6 are to be carried out based on the representing conditions, such as the edge preparation, welding parameter, etc., described in the welding procedure specification, with satisfactory results. However, for high strength rolled steels for offshore structures, the tests are to be carried out for every kind of heat treatment.</p> <p>2 Part of or all requirements for the tests provided in preceding -1 may be dispensed in the case which deemed appropriate by the Society, subject to the approval of the welding procedure specifications.</p> <p>3 The addition of tests or test conditions other than those specified in this Chapter for the welding procedure qualification (e.g. design of strength, thickness and temperature, and welding heat input) may be required, where deemed necessary by the Society.</p> <p>4 The changes of backing material for one-side welding</p>	<p>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p>Part M WELDING</p> <p>Chapter 4 WELDING PROCEDURE AND RELATED SPECIFICATIONS</p> <p>4.1 General</p> <p>4.1.3 Execution of Tests*</p> <p>1 For the approval of welding procedure and related specifications, the tests specified in 4.2 to 4.6 are to be carried out based on the representing conditions, such as the edge preparation, welding parameter, etc., described in the welding procedure specification, with satisfactory results. However, for high strength rolled steels for offshore structures, the tests are to be carried out for every kind of heat treatment.</p> <p>2 Part of or all requirements for the tests provided in preceding -1 may be dispensed in the case which deemed appropriate by the Society, subject to the approval of the welding procedure specifications.</p> <p>3 The addition of tests or test conditions other than those specified in this Chapter for the welding procedure qualification (e.g. design of strength, thickness and temperature, and welding heat input) may be required, where deemed necessary by the Society.</p> <p>4 The changes of backing material for one-side welding</p>	

Amended-Original Requirements Comparison Table (Range of Approval of Welding Procedure and Related Specifications)

Amended	Original	Remarks
<p>are to be deemed appropriate by the Society.</p> <p>5 For qualification tests for stainless clad steels, the requirements specified in 4.2 to 4.5 are to be complied with. However the impact test may be dispensed with where other welding procedure qualification on the stainless clad steel base metal has been approved under the same welding condition.</p> <p>6 Welding procedure used by dissimilar process (combination welding) may be carried out with separate welding procedure tests for each weld process.</p> <p><u>7 Welding procedures approved using test assemblies prepared for multi-run techniques are not to be applied to single-run techniques.</u></p>	<p>are to be deemed appropriate by the Society.</p> <p>5 For qualification tests for stainless clad steels, the requirements specified in 4.2 to 4.5 are to be complied with. However the impact test may be dispensed with where other welding procedure qualification on the stainless clad steel base metal has been approved under the same welding condition.</p> <p>6 Welding procedure used by dissimilar process (combination welding) may be carried out with separate welding procedure tests for each weld process. (Newly added)</p>	
<p>EFFECTIVE DATE AND APPLICATION</p> <ol style="list-style-type: none"> 1. The effective date of the amendments is the date of establishment. 2. Notwithstanding the amendments to the Amendments, the current requirements apply to tests for which the application is submitted to the Society before the effective date. 		