BCS I FTP5 Testing and approval of "A" class divisions – fastening of insulation material and details of joints

Interpretation of paragraphs 1.6 and 7.5.1 of IMO Resolution A.754(18) and paragraphs 1.12 and 7.6.1 of 2010 FTP Code, Annex 1, Part 3, Appendix 1

Paragraph 1.6 of IMO Resolution A.754(18) reads as follows:

The construction to be tested should be, as far as possible, representative of that to be used on board ships, including the materials and method of assembly.

Paragraph 1.12 of 2010 FTP Code, Annex 1, Part 3, Appendix 1 reads as follows:

The construction to be tested shall be, as far as possible, representative of that to be used on board ships, including the materials and method of assembly.

Paragraph 7.6.1 of 2010 FTP Code, Annex 1, Part 3, Appendix 1 reads as follows:

The surface temperatures on the unexposed face of the test specimen shall be measured by thermocouples located as shown in figures 7 and 8:

.1 five thermocouples, one at the centre of the test specimen and one at the centre of each of the four quarters, all positioned at least 100 mm away from the nearest part of any joints and/or at least 100 mm away from the welds to any stiffeners;

.2 two thermocouples, one placed over each of the central stiffeners and for a bulkhead at 0.75 height of the specimen and for a deck at mid-length of the deck;

.3 two thermocouples, each placed over a vertical (longitudinal) joint, if any, in the insulation system and positioned for a bulkhead at 0.75 height of the specimen and for a deck at mid-length of the deck;

.4 when a construction has two differently orientated joint details, for example normal to each other, then two thermocouples additional to those already described in paragraph 7.6.1.3 above shall be used, one on each of two intersections;

.5 when a construction has two different types of joint detail, then two thermocouples shall be used for each type of joint;

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.6 additional thermocouples, at the discretion of the testing laboratory or Administration, may be fixed over special features or specific construction details if it is considered that temperatures higher than those measured by the thermocouples listed above may result; and

.7 the thermocouples specified in subparagraphs .4 to .6 above for measurements on bulkheads, e.g., over different joint types or over joint intersections, shall, where possible, be positioned in the upper half of the specimen.

Paragraph 7.5.1 of IMO Resolution A.754(18) reads as follows:

The surface temperatures on the unexposed face of the test specimen should be measured by thermocouples located as shown in figures 7 and 8:

.1 five thermocouples, one at the centre of the test specimen and one at the centre of each of the four quarters, all positioned at least 100 mm away from the nearest part of any joints and/or at least 100 mm away from the welds to any stiffeners;

.2 two thermocouples, one placed over each of the central stiffeners and for a bulkhead at 0.75 height of the specimen and for a deck at mid-length of the deck;

.3 two thermocouples, each placed over a vertical (longitudinal) joint, if any, in the insulation system and positioned for a bulkhead at 0.75 height of the specimen and for a deck at mid-length of the deck;

.4 when a construction has two differently orientated joint details, for example normal to each other, then two thermocouples additional to those already described in 7.5.1.3 above should be used, one on each of two intersections;

.5 when a construction has two different types of joint detail, then two thermocouples should be used for each type of joint;

.6 additional thermocouples, at the discretion of the testing laboratory or Administration, may be fixed over special features or specific construction details if it is considered that temperatures higher than those measured by the thermocouples listed above may result; and

.7 the thermocouples specified in 7.5.1.4 to 7.5.1.6 above for measurements on bulkheads, e.g. over different joint types or over joint intersections, should, where possible, be positioned in the upper half of the specimen.

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Interpretation

To demonstrate that the tested “A” class assemblies are representative of that used on board ships, the following details shall, as a minimum when applicable, be clearly indicated in test reports and included in type approvals:

- Type, thickness, density and number of layers of insulation material;
- Size, types, materials and fixing methods of pins and washers;
- Spacing between pins;
- Maximum spacing between pins and adjacent joints;
- Stepping of joints for multi-layers if applicable;
- Insulation and pinning details on and around stiffeners;
- Details of wire mesh, aluminium tape etc, if used in the test;
- The type approval test report shall contain the information required by 2.1.3, 2.2.3, 6.1 and 10.4 of resolution A.754(18);
- Type approval certificate shall refer to drawing numbers of the test sample.

(MSC.1/Circ.1435)

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