

Marine Information Bulletin

Qualification of procedures and welding of aluminium ships

Purpose

This bulletin is raised to address the requirements for the welding under Australian Standard 1665 as required by section 5H of the USL Code, and recommended by Part C, Section 3 of the NSCV, for the construction of aluminium ships.

Background

Section 5H of the USL Code calls up AS 4132 *Boat and ship design and construction Part 2: Aluminium construction*. This standard in turn calls up AS 1665 *Welding of aluminium structures* for the qualification of welding procedures, the qualification of welders to carry out welding procedures, the quality of welds, and the weld joint preparation. AS/NZS 1665:2004 is the current version of the standard.

Accredited marine surveyors need not be qualified welding supervisors or welding inspectors, but must ensure that builders of the aluminium ships they are surveying have in place the qualified welding procedures and qualified personnel as required by the standard.

Accredited ship builders or accredited marine surveyors, who declare on a certificate of compliance that an aluminium ship has been constructed in accordance with the USL Code, are declaring that the welding procedures used, and the persons welding the ship, are qualified under AS/NZS 1665:2004.

Recommendations

Accredited marine surveyors should inform builders before the commencement of construction of an aluminium ship that if the ship is to be built to the USL Code the requirements of AS/NZS 1665:2004 must be followed.

If the ship is to be built to another standard or rule about ship building, then the welding requirements for that standard or rule must be followed. This should include any testing of competence for persons performing welding procedures as may be required by the nominated standard or rule.

As stated in AS/NZS 1665:2004, only a welding supervisor can qualify a welding procedure.

An accredited ship builder or accredited marine surveyor who declares on a certificate of compliance that an aluminium ship has been constructed in accordance with the USL Code, and who does not have the appropriate inspection qualifications set out in Section 7 of AS/NZS 1665:2004, should confirm the weld quality in the butt welding on the ship by requiring radiographs or ultrasonic examination to an agreed type in accordance with AS/NZS 1665:2004 (Minimum Category B).

For existing ships, accredited marine surveyors should require radiographic or ultrasonic examination in accordance with AS/NZS 1665:2004 Appendix B - GUIDANCE ON THE SELECTION AND EXTENT OF NON-DESTRUCTIVE TESTING.

Note

Guidance on welding aluminium can be found in publications that can be purchased from the Welding Technology Institute of Australia (www.wtia.com.au), in particular; Technical Note 2 – *Successful welding of aluminium*, Technical Note 7 – *Health and safety in welding*, and Technical Note 22 – *Welding electrical safety*.

Contact information

If you require further information about this bulletin, please contact the relevant person listed below:

Administrative advice

Maritime Safety Branch
Manager (Business Process Support)
Telephone: 3120 7362
Fax: 3120 7356

Technical advice

Maritime Safety Branch
Manager (Policy Implementation and Support)
Telephone: 3120 7354
Fax: 3120 7355

Other Marine Information Bulletins covering various topics relating to the safe operation of ships may be obtained from the Maritime Safety Queensland website at www.msg.qld.gov.au and at the following Marine Operations Centres.

Airlie Beach	(07) 4946 2200	Mooloolaba	(07) 5477 8425
Bundaberg	(07) 4131 8500	Pinkenba	(07) 3860 3500
Cairns	(07) 4052 7400	Southport	(07) 5539 7300
Gladstone	(07) 4973 1200	Townsville	(07) 4726 3400
Mackay	(07) 4944 3700		