



AUSTRALIAN ASSOCIATION OF LIVE STEAMERS

AALS Web Site

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ACN 107 882 404 - ABN 81 107 882 404

AUSTRALIAN MINIATURE BOILER SAFETY COMMITTEE

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MEETING to be held at the QUEENSLAND SOCIETY of MODEL and EXPERIMENTAL ENGINEERS INC on Saturday 30th, 2013, at 9.00 pm.

1. David Proctor, the acting Chairman, will open the meeting for business.
2. APOLOGIES: an attendance book will circulate.
3. MINUTES
4. CORRESPONDENCE
5. CHAIRMAN’S REPORT (circulated)

6. Items for Discussion.

- 8.1 Duplex Steel Boilers:
 - 8.2 Carbon Steel Boiler Code:
 - 8.3 Copper Boiler Code:
- Refer to SLSLS items circulated.
- 8.4 Other Items:

8.5 General Business.-----

Barry Potter, Chairman, AMBSC.

Les Irwin, Hon Secretary AMBSC

*Sydney Live Steam Locomotive Society
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Address all correspondence to
The Honorary Secretary
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Mr Hugh Elsol

Hon. Secretary, Australian Association of Live Steamers

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Upper Mt Gravatt QLD 4122

Dear Hugh,

PROPOSAL FOR MINOR ALTERATION TO THE AMBSC CODE PART 1 – COPPER BOILERS

Attached is a document with three proposed changes to the AMBSC Copper Boiler Code, to be added to the agenda and voted on at the AALS Boiler Inspectors' meeting at the Warner Convention in 2013.

The proposals were compiled by the Boiler Inspectors of SLSLS and passed unanimously at the club's Special General Meeting of the Society on the 4 December 2012.

Also attached is the second page of the document with the proposals and signatures of all five Boiler Inspectors. It was not possible to obtain the signatures on the original document as some inspectors were unavailable except via email.

Yours sincerely

Simon Collier

Hon. Secretary, SLSLS

PROPOSAL FOR MINOR ALTERATION TO THE AMBSC CODE PART 1 – COPPER BOILERS

Background

Section 1.3 of the boiler copper boiler codes gives definitions of some essential items including the level of compliance with design requirements. These have been divided into two levels: "shall" and "should" (Paragraph 1.3.2).

"Shall" is defined as being mandatory. "Should" is advisory only.

Unfortunately "shall" has been used in at least three situations where current practice treats it as "advisory". The current practice however is considered to be safe and conforms to the intention of the code.

Often there is good reason for alternatives to be used however designs must comply with the wording and intention of the code. The code must therefore accurately reflect what is optional and what must be adhered to. This currently is not the case.

Adherence to a "plain language" code provides the best design advice, and certainty of a design and fabrication being passed without unnecessary complications. It also provides boiler inspectors with a set of guidelines that should give consistent interpretations irrespective of who is inspecting.

The three examples of current misapplication of "shall" are:

Section 5.3 Water Gauges – There is a mandatory requirement for cleaning-out plugs to be fitted opposite each passage into the boiler (Paragraph 5.3.6).

Despite the unambiguous requirement of the code many recently constructed boilers do not have this feature, including imported boilers.

If this feature is considered unnecessary the code must reflect this. If it is mandatory boiler inspectors do not have the option of not insisting on this requirement, including for imported boilers.

Section 5.6 Washout Plugs – The code requires washout plugs be used and that they be placed as low as possible on the external plates of the firebox.

In many boilers dedicated washout plugs are not used. In some it is virtually impossible to comply with the code on this requirement at its face value. This especially applies to boilers of the smaller scales.

The possibility of using any other options is not given in the code. It is understood that some inspectors have failed boilers even though alternative options were possible without changes to the boiler. However most inspectors will pass a boiler without dedicated washout plugs provided that an alternative means can be used.

Section 3.4.4 Girder Stays for backheads and tubeplates – The code states that these are only allowed where rod stays are impractical (Paragraph 3.4.4.2). Despite this some builders use girder stays in situations where rod stays could be used.

If girder stays on backheads or tubeplates are safe structurally there is no reason why they should not be used in any normal boiler application provided water circulation is not obstructed at the back of the firebox.

Motions

Three motions are proposed to change the wording of the Copper Code to better reflect current practice and the intentions of the three paragraphs, as described above:

Motion 1

It is proposed that Paragraph 5.3.6 be altered to:

"Water gauges shall be fitted with a blow down cock or valve. A cleaning-out plug or valve shall be provided opposite the water passage into the boiler to allow the passage to be cleaned and proved clear. A clean-out plug should be fitted opposite the steam passage."

Motion 2

It is proposed that Paragraph 5.6.1 be altered to:

"Boilers shall be fitted with washout plugs, located as low as possible on the outer plates of the firebox. It is acceptable to use blowdown valves as washout plugs provided the valve is removed."

Motion 3

It is proposed that the first sentence in the original paragraph be deleted so Paragraph 3.4.4.2 is altered to:

"Girder stays shall not be used where they may interfere with free water circulation around the bottom fitting(s) of water gauge(s)."

Proposed by: the Boiler Inspectors at SLSLS.

David Thom
B. D. Kilgour
Allen Allen
K. K.
B. Boulton

AMBSC CHAIRMAN AND SECRETARY'S COMMENTS RE SLSLS COPPER CODE PROPOSALS

1. We do not support the proposal to make the AMBSC Boiler Codes available freely on the internet, since we both feel there has been too much effort in the production and the revisions by ourselves, and the many previous authors, with knowledge and experience gathered over many years embodied in these codes. Therefore, these should not be given away free of charge without the receipt of some remuneration to aid and assist the finances of the AALS.

2. In regard to the other SLSLS suggested Code amendments, these proposals are only semantics.

Any Boiler Inspector is allowed to make a decision e.g. that a blowdown is suitable as a washout orifice, especially as this has no effect on the total safety of a boiler or its strength.

3. We are very loath to attempt revision of our codes presently, as this could jeopardise the inclusion of our codes in the new Work Cover Australia, unless it can be shown that there is a pressing safety issue.

4. We feel that these three amendments do not present any safety issues and they should be set aside for consideration when the next revisions are due.

Barry Potter, AMBSC Chairman

Les Irwin, AMBSC Secretary.