

## **Notes of Boiler Test Group Meeting held at Bedford 14 September 2011**

Present: Mr A Wood – Walker Midgley  
Mr B Reading – 7.1/4" Gauge Society  
Mr F Stephen – Northern Association  
Mrs M Stephen – note taker.

Mr M Raybould – Footman James  
Mr W Pearson – Southern Federation  
Mr M Armstrong – Midland Federation

Joining the meeting at 12.00 Mr R Garnett – RSA

The cost of the meeting was sponsored by Walker Midgley Insurance Brokers Ltd.

The meeting was opened by the Chairman, Mr Tony Wood, at 10.00 am. He welcomed everyone and in particular Mr Marytn Raybould from Footman James.

### **1. Apologies for absence**

There were no apologies for absence.

### **2. Notes of meeting held 16<sup>th</sup> March 2011**

These were agreed and signed by the Chairman.

### **3. Matters arising.**

A letter of thanks had been sent to Mr R Greatrex regarding his previous involvement with the group.

### **4. Terms of reference. Appendix 1**

Text provided by the organisations prior to the meeting was incorporated into the previously circulated ToR.

The introduction was updated.

Item 13 re casting vote was updated.

Item 14 re 'mandatory'. Following discussion the clause was split into two, with a new Item 15.

The M F comment on meeting costs was debated.

Noting that Walker Midgley had sponsored this meeting, Footman James offered to fund the room costs for a future meeting.

These offers were appreciated by the organisations and they were thanked for their sponsorship.

Following the ToR amendments it was agreed that the document be circulated by the organisations for final comment with a view to possible agreement.

Any further changes are to be notified before the end of December 2011.

### **5. HSG 216 etc.**

The latest information received from within the organisations was that Entertainment Sheet 12 was being withdrawn by the HSE.

HSG 216 was once again with the ORR. There was no intention to re-write or update the document in the immediate future. Only copies of the original document were currently available.

All organisations and their member societies are reminded of their obligations

under RIDDOR. There was a requirement to report incidents, in particular if someone was injured.

### **6. Boiler design code; 7. Boiler construction code; 8. Beginners guide to boiler building;**

The meeting discussed the objective and merits of each of the three topics. Whilst the S F view was that the number of people requiring a design code was small. However, there was a need for documents that would provide consistent and hobby helpful information.

The meeting briefly discussed the possibility of 'adopting' the Australian code in place of 'adapting' it or having to re-write it. This leads to the requirement for someone to contact the appropriate authorities for further discussions.

The Group therefore issues a request that anyone within the hobby who is interested in the creation of documents regarding the above items 6, 7 and 8, should contact the Chairman, Mr Wood, before the next meeting.

### **9. Welded copper boilers**

Welded copper boilers may be acceptable provided that:

- a) Certified material is used with supporting paperwork
- b) The welding is carried out by competent and certified welders qualified for welding the material.

These requirements are mentioned in the Blue Book. The meeting noted that retrospective testing and CE marking of copper boilers has not been successfully achieved.

### **10. Stainless steel boilers**

At present the Blue Book states that stainless steel boilers shall not be tested. However, the RSA will accept commercially made and tested stainless steel boilers provided they meet approved design standards and the boiler has a commercial test certificate .

The meeting noted that the AMBSC Code, Part 4 – Issue 1 2010 was now available. This could be used as a basis for a duplex steel boiler and the RSA would welcome the opportunity to assess and possibly test a boiler constructed from this material.

### **11. Boiler seminars: 12. Routine boiler maintenance seminars**

There is the possibility of a further seminar being arranged by the NAME in the New Year. The location will be advised to the organisations.

The topic of boiler maintenance could be included in the matters covered if the organisers agreed.

### **13. Boiler tests and the need for a witness**

The SF recorded their wish to keep the witness requirement. A similar view had been expressed by the M F. There was a suggestion that because inspectors were not always 'professional engineers' the need for a witness should remain.

Furthermore the S F did not hold a record of boiler inspectors.

The meeting discussed the topic and the points covered were

- a) The original aim of the witness becoming an inspector

- b) The witness should be competent as described in the blue book
- c) Witnesses were not always available and in remote areas this caused paperwork difficulties
- d) There was possible use of witnesses who were not 'competent'

The meeting was reminded that the original aim behind the proposal was that the witness became an 'option'. The use of a witness could be discretionary by the society, the boiler inspector or the boiler owner, as deemed necessary.

Further discussion took place regarding a suggestion that some boiler inspectors could be nominated as 'single signatures'. An 'approved' list could be made available to the organisations whereby the single signature of a boiler inspector on a certificate could be accepted.

Mr Reading agreed to redraft the proposal and circulate it to the meeting members.

See Appendix 2.

#### **14. Written scheme of examination**

A draft of a proposed WSOE for a copper boiler had been circulated by Mr Pearson. He outlined the reasoning behind the document. The point being made was that the technical information existed and that the WSOE points to the place where information may be found.

Mr Garnett added that the Blue Book content was OK but updating could include details that 'tied' the boiler being inspected to the WSOE.

Following extensive discussion regarding the requirements of a WSOE and the details that could be included, or were necessary for the hobby paperwork, Mr Pearson offered to carry out further work on the document he had drafted.

#### **15. Boiler test code**

Following the previous discussion all agreed that the Blue Book had reached the time when it should be 'revised'.

Mr Pearson offered to revise the document and it would be useful to incorporate the WSOE requirements and references into any future edition.

There were topics that had been notified to the organisations for possible incorporation into future revisions and these would be considered. All organisations were asked to send any amendments in writing to Mr Pearson through their Boiler Sub Group representative for consideration. This included issues raised by the S F prior to the publication of the current 'Blue book'. The Chairman agreed to draft a notice for the Model Engineering press. All comments to be received by 31<sup>st</sup> December 2011. Copy attached, Appendix 3.

An amendment regarding boiler storage, section 12.5, was passed over for possible incorporation.

Clarification regarding the size of boilers covered under the hobby scheme was to be incorporated into the revision.

## **16. Model gas tanks**

Based on the NAME document the S F had drafted a revised boiler test supplement covering the safety of LPG tanks. The reasoning behind the rewording was explained, as was the revised test procedure. Mr Garnett raised some questions regarding the test procedure outlined in the S F document.

## **17. Gas pressure systems**

There is an increase in interest and construction of gas fired locomotives and other steam raising plant. Following discussion the meeting agreed that the uneducated use of 'gas' systems was not helpful and guidance would be useful.

A recent publication by the model engineering press relating to gas firing a 71/4" Gauge Romulus raises concerns about the situation. The suggestion to connect the system with some 'cheap rubber hose' which in turn is fitted as a push fit on a copper pipe stub very close to an open flame is not what is expected as safe practice. Gas hoses, particularly for propane, are to a specific British Standard. The hobby needs some guidance to be circulated to prospective builders before there is an incident.

The Chairman agreed to contact the LP Gas Association, Ringwood, on behalf of the group. The meeting also asked that the model gas tank questions be raised. A report back would be made.

## **18. Gas turbines**

The number of gas turbines and similar equipment in use was small. The meeting agreed that where such novel equipment was to be used the owner and the owners of the premises on which the equipment operates have a duty of care to others. This may be achieved by carrying out a risk assessment before the items are put into use and ensuring any safety related items that may be necessary are also to hand, for example fire extinguishers etc.

It may be appropriate to make contact with or make reference to the Gas Turbine Builders Association who may well have documentation and procedures already in place.

## **19. Reactors**

The group have no experience in this field of the hobby. Should the device be radioactive and a possible risk then the appropriate authorities should be contacted regarding requirement for use and possible transport.

## **20. Club boilers**

The questions are:

1) Does the CE compliance exemption apply to boilers built by a club for their own use?

The response was 'Yes' boilers built by a club for their own use do not need CE marking

2) May a club test a boiler which is owned by them?

The response was 'Yes'

3) May a club test a boiler which was built by them?

The response was 'Yes', provided the actual 'builder' does not test the boiler.

### **21. Unmarked foreign boilers**

Boilers that were purchased commercially after May 2002 should be CE marked. If a boiler manufactured after that date is presented for test under the blue book scheme it may not be tested.

The meeting was advised that boilers manufactured outside the EU are also subject to the regulations.

### **22. Materials and specifications**

It is the responsibility of the purchaser of any material used in a boiler to ensure that the material is suitable for the purpose. Before commencing construction potential builders should consult their boiler inspectors who may also wish to satisfy themselves that the correct material is being used.

Where there is any doubt the purchaser must request and obtain appropriate certification. If certification is not available then the material should not be used.

### **23. Insurance**

Traction engines or any other steam operated vehicle should have a valid boiler and steam test certificate before being operated, especially in public areas. There are no exceptions and third party insurance does not cover boiler operation.

### **24. A.O.B.**

Mr Armstrong raised a question regarding boiler inspection certificates. A boiler certificate must be able to be linked to an identifiable boiler. If the boiler and paperwork do not match, or are unconnected then the paperwork and boiler are not acceptable.

Where there was any doubt as to the construction or suitability of new boilers, issues could be referred to the HSE or Trading standards.

### **25. Date and place of next meeting**

The date of the next meeting was 14<sup>th</sup> March 2012.

Mr Garnett offered to host the meeting in Manchester, a suggestion that was readily accepted.

The meeting closed at 4.15 pm.

## **APPENDIX 1.**

**Issue 4, 14<sup>th</sup> September 2011**

# **MODEL ENGINEERING LIAISON GROUP**

## **BACKGROUND**

In the 1990s The Miniature Railway Liaison Group (MRLG) was set up in conjunction with, and hosted by, the Health and Safety Executive (HSE) and consisted of representatives from all model engineering associations/federations, certain model engineering societies, the model engineering press, the model engineering trade, commercial miniature railway operators, insurance representatives and the Office of the Rail Regulator. Amongst other work undertaken by the Group HSG216 was drafted and published and the agreement reached that the separate boiler test codes of the 7.1/4" Gauge Society, the Northern Association of Model Engineers and the Southern Federation of Model Engineering Societies be merged in to one universal test code. A subcommittee, the Boiler Test Group (BTG), was set up to undertake this task.

The Health and Safety Executive considered that the raison d'être of the Miniature Railway Liaison Group had reached an end and the Boiler Test Group was left to continue its work on the boiler test code. The various Organisations involved with Model Engineering activities have decided that the current Boiler Test Group should, in future, be regarded as a Group set up by the Organisations and that it should have wider terms of reference so that it can act as a route for any further consultation required on any matters concerned with the hobby. The group is to be known as the Model Engineering Liaison Group (MELG).

In the interests of efficient management the core membership will be kept as small as possible. However, in the event that there is a specific item on the Agenda that requires specialist knowledge, any of the Organisations represented can request additional representative attendance for that meeting, or part of that meeting when such an item is to be discussed.

The Terms of Reference for the Model Engineering Liaison group are as indicated herewith.

## **TERMS OF REFERENCE**

1. The Group shall be known as the Model Engineering Liaison Group (MELG)
2. The membership of the Group will normally consist of one formally appointed representative from each of the following Organisations.  
  
The 7¼ inch Gauge Society  
The Midland Federation of Model Engineers  
The Southern Federation of Model Engineering Societies  
The Northern Association of Model Engineers  
  
The Insurance Brokers of the relevant Organisations shall also be invited to attend.
3. In the event that the formally appointed representative is unable to attend a meeting the relevant Organisation can appoint a deputy to attend.
4. The Group can co-opt other persons, who have specialist knowledge on a particular subject, to serve for a specific period.
5. Other Organisations can apply to join the Group but any permanent change in the membership shall require the approval of the Organisations listed above.
6. The Chairman of the Group shall be appointed annually from one of the representatives of the Organisations or be an independent person at the discretion of the members of the MELG.
7. Meetings shall be called as and when specific needs arise but there shall be a minimum of one meeting per year.
8. The Group shall make arrangements for a Minutes Secretary to attend all meetings.
9. The Minutes Secretary shall produce minutes of the meeting for circulation to the members of the Group for approval by them. The minutes may then be circulated to the member Organisations.
10. The Chairman of the Group shall ensure that a formal Agenda is circulated to all members of the Group two weeks before the date of the next meeting.
11. Members of the Group wishing to include items on the Agenda for discussion shall notify the Chairman before the Agenda is published.
12. In the event that an Organisation feels that there is a specific item requiring specialist knowledge then they shall have the right to request an expert representative be invited to attend that part of the meeting. Rejection of such a request shall be justified.

13. If a vote on an issue is necessary the appointed representative from each Organisation shall have one vote. The Chairman, if entitled to vote, will not have a casting or second vote. Other persons at the meeting may not vote.

14. Any decision made by the Group for mandatory issues shall be the unanimous decision of the appointed representatives from each Organisation prior to ratification by each organisation.

15. For discretionary issues the Group can agree to individual action by the Organisations.

16. Whilst the Organisations retain their autonomy they agree that an approach to, or conversations with, the Health & Safety Executive or any other government or enforcement body which may have implications for the modelling or model engineering hobby as a whole should be with the full agreement of the Group

17. The venue for the meetings shall be agreed by the members of the MELG.

18. The cost of hire of the venue and any postage incurred shall be shared by the Organisations.

19. The costs of travel and any other costs involved to enable the representative and, where necessary any co-opted person, to attend a meeting shall be met by the relevant organisation.

20. Any proposed changes to the Terms of Reference for the MELG shall be submitted to the Group for discussion and formally agreed by the Organisations.

Signed and Agreed on behalf of their respective Organisations

Brian Reading 7 <sup>1</sup> / <sub>4</sub> " Gauge Society	
Malcolm Armstrong Midland Federation of Model Engineers	
Frank Stephen Northern Association of Model Engineers	
Wally Pearson Southern Federation of Model Engineering Societies	

Dated

2011

Issue 4

**Appendix 2**

## MELG Information Sheet 1

**MODEL ENGINEERING LIAISON GROUP****The Examination and Testing of Miniature Steam Boilers (Revised Edition 2008)****Witness to an examination of a boiler**

Paragraph 2.7 of the Examination and Testing of Miniature Steam Boilers (Revised Edition 2008) – the “Blue Book” – sets out the definition of the role of a witness to a boiler examination (which can be a hydraulic test and or steam test). Certificates for hydraulic examinations and for steam examination have a line for the signature of the witness. This implies that a witness is a mandatory requirement.

It has been agreed by MELG that with effect from (*insert date*) any of the organisations listed below can make arrangements for a boiler inspector to be a sole signatory on a boiler certificate (examination under steam and/or hydraulic test). The authorising body shall provide the boiler inspector so authorised with a certificate to this effect (see attached) a copy of which must be attached to all boiler test certificates when the test is not witnessed. The section of the boiler certificate for the signature of the witness shall be endorsed to make reference to the attached authorisation given to the boiler inspector.

This Information Sheet is issued with the support of the following organisations:-

Midlands Federation of Model Engineering Societies  
Northern Association of Model Engineers  
7.1/4" Gauge Society  
Southern Federation of Model Engineering Societies  
Walker Midgley Insurance Brokers  
Footman James Insurance Brokers  
Royal Sun Alliance Insurance

**Explanatory Note**

Whilst the responsibility of the boiler inspector is a personal one not shared with the witness at the time the Test Code was compiled the position of witness was included mainly because some of the previous schemes of examination had this provision and it was thought that the role of witness would represent a training opportunity for future boiler inspectors. Experience has shown that there are sometimes difficulties in a boiler inspector obtaining the services of a witness particularly in rural areas when often significant travelling is involved to smaller “private” railways without the presence of a model engineering club. It is for this reason that MELG have agreed the amendment to the Boiler Test Code set out in this information sheet.

Date

**Authority to test a boiler without the presence of a witness  
(MELG information sheet No. 1 refers)**

This is to certify that .....  
*(show name of Club/Society etc)*

has authorised.....  
*(print full name)*

to undertake steam and hydraulic boiler examinations and issue certificates without the presence of a witness.

Show Club/Society reference to the minutes of a meeting when approval was

given.....

.....  
*(Signature of responsible person on behalf of the issuing Club/Society)*

*Position in Society*.....

*Signature of the boiler inspector named above*.....

Date of issue of this certificate.....

### **Appendix 3**

The Model Engineering Liaison Group (MELG) is to undertake a revision of the model engineers' boiler test code (often known as The Blue Book). The MELG comprises representatives from the 7.1/4in Gauge Society, the Midland Federation of Model Engineers, the Northern Association of Model Engineers and the Southern Federation of Model Engineering Societies, plus Walker Midgley Insurance Brokers, Footman James Insurance Brokers and principal insurers Royal Sun Alliance. The intention is not to change the boiler test procedure but to make the code more user friendly and consider any amendments that may be beneficial in the light of several years' operational experience.

A major part of the revision is the consideration of comments and suggestions received from clubs, societies and individuals. If you have any comments which you would like to be considered they should be sent to the association or federation to which your club or society belongs or, if you prefer, they may be sent direct to the MELG chairman, Tony Wood, at Walker Midgley Insurance Brokers, Yorkshire Bank Chambers, Fargate, Sheffield S1 2HD (tonyw@walkermidgley.co.uk). The closing date for comments to be received is 31 December 2011.