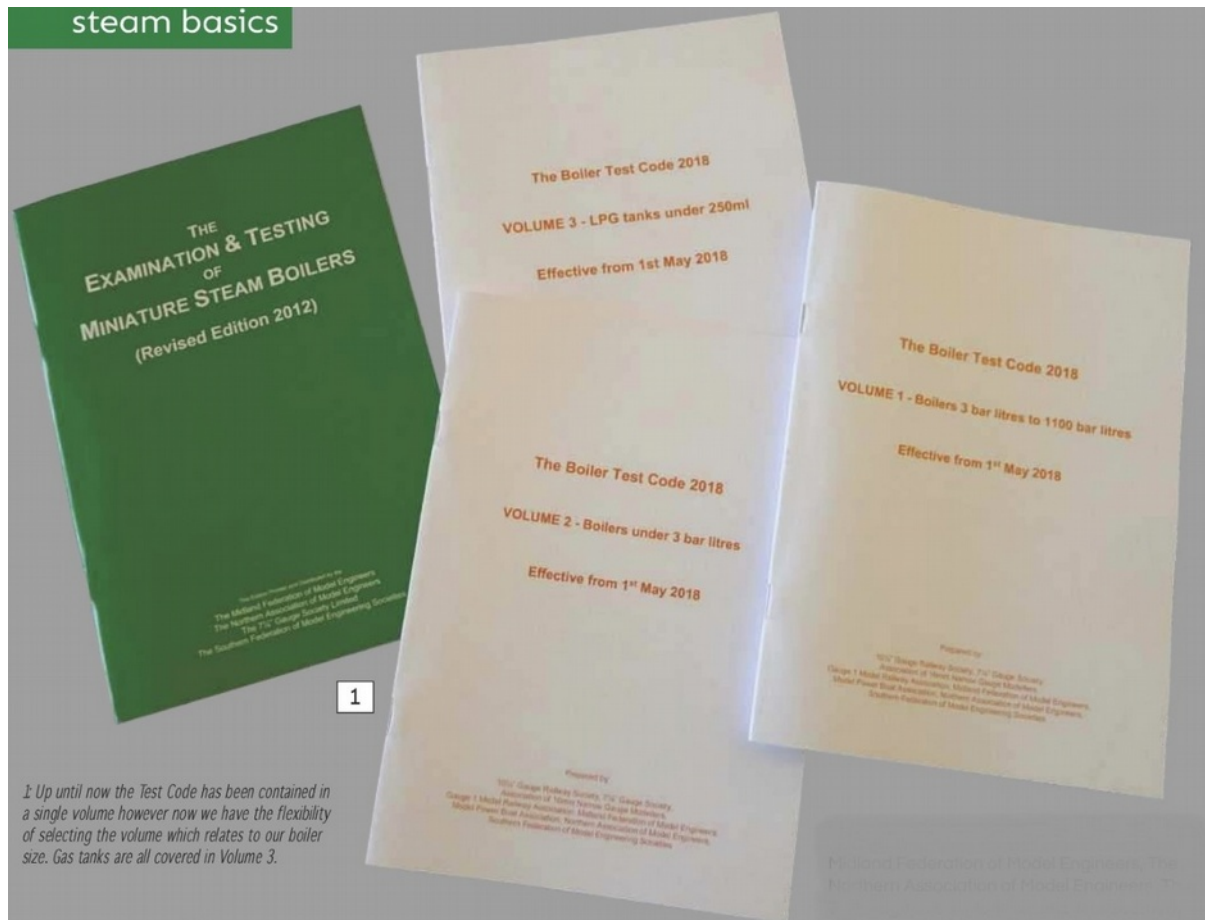


Steam Boat Boiler Certification



The Orange Book

The following is an outline of latest requirements for the operation of steam engine boilers. The new regulations now come in the form of the Orange Book which was published in 2018 to replace the old Green Book. It was put together by the Midland Federation of Model Engineers, The Northern and Southern Federation of Model Engineering Societies, and our club insurers Walker Midgley. The Model Power Boat Association also now signed up to this. (There were two other insurance companies who signed up to the Green book who have now dropped out. If you ever join a club who are not insured with Walker Midgley you will have to find out what their insurance requirements are). Simple Boilers of the small Mamod, Wilescro and Bassett-Lowke have their own rules covered in the Orange book. They are now separated into two classes LO and LS not detailed here but these rules must be adhered to if operating these type of boilers.

The Orange Book now comes in three separate volumes which can be obtained from the above societies or from the web.

Volume 1 Covers boilers from 3 bar-litres to 1100 bar-litres.

Volume 2 Covers boilers up to 3 bar-litres.

Volume 3 Covers LPG gas tanks up to 250ml

(A Bar-Litre is the volume of the boiler in litres multiplied by the working pressure in bars).

Boilers are now tested to Test Code 2018

The majority of our boat boilers come under volumes 2 and 3.

Both volume 1 and 2 boilers must have a Hydraulic Test Certificate and a Steam Test Certificate. Once boilers up to 3 bar-litres have a Hydraulic Test Certificate it doesn't have to be renewed again for boilers made from copper. Boilers made from brass must be renewed every three years. Both types of boiler must be tested again if they have been modified. The Steam Test Certificate has to be renewed annually. For larger boilers covered by volume 1 both certificates have to be renewed annually.

If you purchase a boiler / steam plant directly from a manufacturer such as Pendle Steam Boilers an initial hydraulic test is still required. If the manufacturers Hydraulic Test Certificate contains the information that is stated in the Test Code then fittings and lagging need not be removed. (Caution should be taken re subjecting pressure gauge glass etc. to twice the operating pressure).

Homemade boilers must be hydraulically and steam tested as detailed in the Test Code 2018.

Something to bear in mind when buying second hand steam boats or boilers, you should ask the vendor for the test certificates. If they are not available it can be quite a time consuming job to remove the boiler from the boat and it may be necessary to strip it of all its lagging and fittings.

LPG gas cylinders / tanks,

Volume 3 requirements must be studied carefully because while some of the disposable type are exempt from testing, all others must have a test certificate.

You must not raise pressure in any boiler or tank without the appropriate certification.

Failure to comply with these procedures would invalidate the clubs insurance, and in the event of an accident any third party claim will become entirely the responsibility of the owner. The club and its' insurer will not be held liable.

The onus for obtaining all the required certificates is the responsibility of the owner. Testing can be carried out at any club that has a Certified Tester, providing he is willing to do so. It may be a requirement of their insurance cover that you have to join there club.

Testing at Knightcote

Knightcote model boat club are willing to carry out the boiler testing without joining their club. We are of the understanding that at the moment this is acceptable. We have contacted our insurers for confirmation of this, and are awaiting a reply. This may change in the near future.

Knightcote have asked if they can see photographs of the boiler prior to testing to check if they need to obtain any adaptors that may be required to carry out the tests.

There is a charge involved for the three types of test these are:-

£5-00 per test (£10-00 for a pressure test and steam test) and £5-00 for a gas tank test.

If you wish to take up this offer please contact DSMBCs secretary

References

Model boat articles – December 2018, page18

January 2019, page 21

October 2021, page 10

November 2021, page 67

Web Addresses for Orange Book:-

http://www.midfedmodeng.altervista.Boiler_page.htm

<https://www.name-1.org/documents>