

Title Testing And Certification Of LPG Tanks

A: Purpose

With effect from 2018, revised procedures covering the testing and certification of LPG Tanks under 250ml came into effect. This guidance note highlights the salient points of these procedures but it does not cover every detail. The full procedures are available for inspection at the Track and it is the responsibility of members who construct or operate models powered by gas to familiarise themselves with the requirements.

B: Scope

The procedures as set out below are applicable to LPG Tanks under 250ml. Liquefied Petroleum Gas (LPG) in this context comprises commercial butane or butane/propane mix with a maximum propane content of 40%

C: Responsibility

All Drivers/Owners must ensure their LPG tank has current certification that complies with the Federation of Model Engineering Societies Regulations before use.

D: Actions

Where a member has purchased a new LPG tank which has been manufactured and hydraulically tested by a recognised Commercial Manufacturer, the Manufacturer's Certificate for a hydraulic shell test to 400 psi will be acceptable as proof that the structure of the gas tank has satisfied the requirements for the hydraulic test.

Second-hand LPG tanks must have the relevant paperwork or will be classed as 'Unknown' and therefore subject to the regulations as a new tank.

New Gas Tanks or those with no paperwork require:

- Shell Test: An initial hydraulic test to 400 psi. The tank should be without fittings and unmounted.
The pressure will be held long enough to investigate any distortion of the vessel and to confirm that any fall in pressure is not caused by structural weaknesses.
- Safeguard Test: Prior to first installation, the tank should be unmounted but with the gas filler valve and gas control valve in place. Once filled with LPG, the gas should be at or raised to approximately 20 degrees to test for leaks from the fittings

Following any repair to the tank, it will be considered as new and have to have both a Shell Test and a Safeguard Test.

All gas tanks:

- Safety Check (Leak Test): a safety check will be carried out every 4 years, in synchronisation with the hydraulic test for the boiler of the engine. Where reasonably practicable the whole of the tank shall be examined visually. Where not possible spraying or covering the accessible tank joints and unions with soap solution should be used to reveal any leakage. The results will be

recorded and linked to the boiler hydraulic test certificate using the boiler certificate number.

LPG Tank Identification

At the satisfactory completion of the initial hydraulic test a tank will be allocated an identification number. This number is to be stamped on the tank in a location where it will be visible when the boiler is in use. If the boiler is already stamped, this identification is to be recorded on the certificate.

Examiners' Authority

The regulations permit the examiner to vary the test requirements where he considers this to be appropriate.

A member must give one week notice to the boiler inspectors when tests are required.

The boiler inspectors are:-

Ian Spencer Stuart Davidson Eddie Gibbons Brian Nicholls Norman Blackburn

Date & Reason for issue/update 28/11/2023 revision & new format
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