

Release of Amended (Exhaust Noise Emissions)

LVV Standard & Form-set

Background:

During 2007, Land Transport New Zealand (LTNZ) is amending the Land Transport Rule: Vehicle Equipment 2004 (Rule 32017), which includes setting the long-term picture for objective noise testing. As part of the process of preparing for this, LTNZ and the Ministry of Transport wanted to make a few minor changes to the objective noise testing process itself. LTNZ and LVVTA discussed these issues, and during February LVVTA carried out the amendments to LVV Standard 90-20 (Exhaust Noise Emissions).

As LTNZ were to circulate the draft rule for comment in February of this year, the changes had to be made to the LVV Standard by then so that anyone wishing to comment on the draft rule could access the current standard on the LVVTA website and see what the standard, and understand what the objective noise testing process involved. For this reason, the amendments to the standard were rushed through without the usual LVVTA consultation process, however, LVVTA are confident that there is nothing amongst the changes that any LVV Certifiers, Council Members, or vehicle enthusiasts would be opposed to.

The primary changes to the standard are outlined as follows. As always, any changes have been shown in shading, with a vertical stroke in the adjacent left-hand margin. There are other minor changes within the standard in addition to those covered here, but they are of minimal consequence and are self explanatory.

Changes to LVV Standard 90-20 (Exhaust Noise Emissions):

Factory-fitted multi-mode systems

2.2(3) of the standard has been amended to recognise that some vehicles are equipped with a multi-mode exhaust system as original equipment by the vehicle manufacturer, and in such cases, these systems are not required to be changed or removed, even if the specified decibel levels are exceeded. Such systems however cannot be retro-fitted, or designed into a scratch-built vehicle.

Field calibrator

2.4(2) has been incorporated to ensure that only approved field calibrators can be used as part of the objective noise testing process.

Type-2 sound level meters

2.4(3) has been incorporated to ensure that only those Type-2 meters issued by LVVTA can be used for 'quick-checks', and the same paragraph also clarifies that the 'quick-check' test process can only be a preliminary check prior to the full objective noise test with the proper equipment.

Test engine speed tolerance

2.6(1) now allows a variation of + or – 5% of the engine speed used for the objective noise test process. This is a standard sort of tolerance to allow for difficulties in holding engine speed at precisely the desired RPM.

Change to percentage of ESMP

2.6(1) now requires that when using the manufacturer's ESMP, and setting the RPM at which the test is to be carried out at, the selected engine speed is now to be 50% of the ESMP, rather than 75% of the ESMP.

Microphone positioning

2.8(3) now allows a variation of + or – 10 mm when positioning the microphone at the specified 500 mm from the exhaust outlet.

2.8(7) now allows the microphone to be positioned at less than the specified 45 degrees from the exhaust outlet in order to achieve a clear 'line of sight' between the microphone and the exhaust outlet.

Decibel factoring

2.9(2) now allows a factor to be provided, in addition to mid or rear-engined vehicles, to the case of an exhaust outlet that is within 1.5 metres from the engine. This will be of some assistance to a lot of short wheelbase vehicles such as Lotus 7 replicas and AC Cobra replicas, where, due to the short distance between the engine and the rear wheels, an unusually short exhaust system is required.

Changes to Form-set FS037 - Exhaust Noise Testing:

The changes made to the Exhaust Noise Emissions LVV Standard have necessitated changes to Form-set FS037 – Exhaust Noise Testing. These changes have been made, and Form-set FS037 has been issued as Issue #2. All of the changes to the Form-set are shown in shading for your easy identification.

Finally:

If you have any queries or require any further clarification relating to this Information Sheet, please feel free to contact the technical team at the LVVTA office on (04) 238-4343.