



Testing Times

Welcome

Welcome to Edition 13 of Testing Times.

There is a variety of interesting subjects in this issue with the vehicle structure, air bags and warning lights, brake repairs and ABS all getting some coverage.

Boom! Baby! Boom!

You can sometimes hear a car coming long before you see it. Not because of a noisy exhaust but because the driver has the windows down and the sound system up.

Talk about BASS! Talk about hearing loss! It must be worse than working in a boiler factory!

But how do you get so much noise from car speakers?



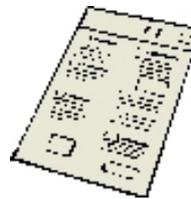
Simple – install very big ones and feed them from massive amplifiers that flatten the battery in a few minutes if the engine is not running. Well, the amplifier load is the driver’s problem - a car with a flat battery is not much of a safety risk. But the large speakers can be your problem.

As you all know, modern cars have no more steel in them than is absolutely necessary and if someone cuts out some steel to install the large speakers, then who knows what damage is done? This is a particular problem where the steel is from the rear “parcel shelf” as this area is also the mounting point for the child restraint anchorages (there are three

required on newer cars) and seat belt mounting points.

What does this mean for you? It means that where the rear parcel shelf may have been weakened by the removal of material to fit

large speakers you should see an engineer’s report certifying the strength of the child restraint(s) and seat belt anchorages before you issue a RWC.



Airbags and Warning Lights

VSI 26 requires that the airbag warning lamp must function. Why so, when airbags and the warning lamp are not mandatory fittings in the ADRs?

ADR 69 and 72 require cars to provide minimum levels of occupant protection in frontal and side impact crashes. Some vehicles can meet these requirements without airbags while others must have airbags to do so. Even some of those vehicles with airbags may meet the requirements without the airbag(s) but only the manufacturers know for sure and they are not telling.

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Therefore, wherever an airbag is provided as standard it must remain in place and functional to be certain that the vehicle continues to comply with the ADRs.

Replacing deployed airbags or failed airbag modules is not cheap and some people would like to avoid this despite the risks involved particularly if they on sell the vehicle. If the airbag is faulty or has been removed the warning light will light up and stay lit whenever the ignition is on.

However, the owner or an unscrupulous repairer may simply remove the globe or even more sneakily, replace it with a blown globe. The only way you can be reasonably certain that the airbag is still fitted and will work when needed is to ensure that the airbag warning light comes on when the ignition is first switched on and then goes off after a short system check period.



Brake Repairs

It appears that an old and dangerous practice of trying to clean oil or grease from contaminated brake linings using petrol or some other solvent has resurfaced.

However, brake lining material is relatively porous and washing them in a solvent simply allows the contaminants to be absorbed further into the lining structure.



Many years of brake roller testing has proven that you cannot effectively clean linings. After treatment, the linings may look clean but the heat generated in braking quickly causes the contaminants (plus the solvents now deep in the lining material) to boil out onto the surface again, drastically reducing brake performance and balance.

If the lining material of a brake gets contaminated the only way to correct the problem is to replace the lining material after first thoroughly cleaning the brake drum or disc rotor. It is also essential that linings or pads are replaced in pairs (or sets) exactly as the manufacturer supplies them and the manufacturers do not supply "one wheel" sets for good reason.

Replacing the linings on one wheel only will almost certainly lead to brake balance problems as different batches of lining materials as well as differently worn material have different friction properties. Splitting up a set of replacement linings in order to save a few dollars goes against the advice of all manufacturers and is contrary to accepted safe industry practice and could generate enormous liability issues for anyone doing so.



For the same reasons fitting second hand pads/linings is fraught with risk as you don't know if they are, or have been, contaminated or if they are all from the one set.

While you are about it, don't forget to check the wear tolerances on the drum or rotor.

While talking about brake repairs, when hydraulic drum brake linings are replaced it is essential to check the condition of the wheel cylinders. On some vehicles they will almost certainly either need replacing or at least have the bores honed and new cups fitted. This is because, when the new linings are fitted and the brakes re-adjusted, the cups may now travel in a different part of the wheel cylinder that, over the years, has become rusted and pitted either from:

- the moisture absorbed by the brake fluid that no-one has thought to change at suitable intervals; or
- the moisture and other rubbish that has got in through the damaged or missing brake actuating rod seals.

In either case, the end result is that shortly after replacing the linings the bores scour the cups and the cylinders start to leak.

ABS Braking Systems

ABS stands for “Anti-lock Brake System” and as its name suggests, ABS prevents wheels from locking up under severe braking or when braking in slippery conditions.

If the ABS fails to operate the braking system will still operate as a standard (non ABS) system.

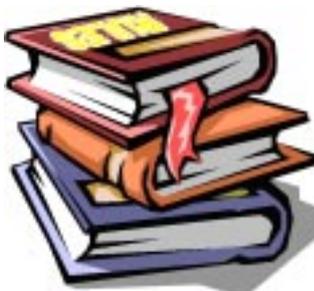


ABS is an **optional** system on cars; therefore as long as the brake system meets the roadworthy requirements, including the stopping test, it is not mandatory for any ABS fitted to be in an operating condition. This means that on a car you can ignore the ABS warning light although you should note any malfunctioning ABS on your test report and inform the owner.

The situation is different for some trucks and trailers. ABS is a **mandatory** requirement for “B” double trailers carrying dangerous goods and for all “B” double prime movers. On all other trucks and trailers it is optional.

Defect Notice Clearances

A few years ago all States and Territories agreed to recognise each others Defect Notices (DNs) and accept each others clearance processes. Hooray, hooray for national uniformity but don't get too excited!



Because of the differences in each jurisdiction's administrative and clearance processes some business rules were needed.

It was agreed that, irrespective of where the vehicle is registered and where the DN was issued an inspector/tester must treat the vehicle and the DN as if they were from the tester's own jurisdiction. In other words, in Victoria, a LVT can issue a RWC but cannot remove/clear a DN even if the notice says it can be cleared at an Authorised Inspection Station (AIS).

The only exception here is if the LVT is also an AIS for another jurisdiction. In this case the other jurisdiction's AIS procedures may be applied but only if the DN was issued in that other jurisdiction.

Laws in most states and territories make it an offence to remove a DN unless the person doing so is specifically authorised. This may seem restrictive but without this there would be no control on the removal of DN's. Further, the DN will be recorded on the vehicle's registration record held by the registering jurisdiction and unless it is advised of the DN clearance through the proper channels it will proceed to suspend the vehicle's registration.

ADR Compliance Plates

ADR Compliance Plates simply certify that when the vehicle was first built it met all the applicable ADRs at the time. Compliance Plates are not vehicle identifiers (even though they now carry the VIN) and should not be used as such as they are just too easily removed and replaced without evidence. On older vehicles they were useful to find out just which ADRs applied but this is no longer the case as there are too many ADRs to include on the plate.



In Victoria, once a vehicle has been registered there is no legal requirement for a compliance plate as it then serves very little useful purpose although its absence might arouse some suspicion and cause the vehicle to be looked at more closely.

When carrying out a test for a RWC the VIN marked or plated on a major structural part of the vehicle should be used as the prime vehicle identifier and the presence or otherwise of a compliance plate should in no way influence the issue of a RWC.

LPG Compliance Plates

The fitting of LPG compliance plates is part of a process designed to prevent unauthorised installers from creating hazardous situations when an LPG system is first being installed.

However, an LPG Compliance Plate is just like an ADR Compliance Plate. Neither plate is a guarantee that the vehicle still meets the original standards.

When performing a roadworthy test your job is to follow the in-service procedure from AS1425 regardless of whether a LPG Compliance Plate is fitted or not.



You must decide if the system still complies. Simply verifying that an approved installer did the original installation is not sufficient. If you don't know how to check LPG systems there are short courses available.

Is Your LVT Licence Still at Risk?

As mentioned in the last issue of Testing Times, all LVTs should by now have at least one testing mechanic who has successfully completed the full (LVT) Accreditation course although "motorcycle only" testers still have a little time left. There has been considerable advance notice of this requirement and the deadline has been extended a couple of times but it is now well and truly past. Unfortunately, some testers are still dragging their heels and VicRoads has been left with no option but to start suspending licenses where it is found that none of the staff have completed the accreditation training.

This action will include "motor cycle only" testers from June 2002.

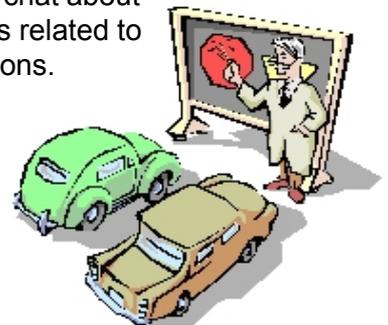
Motor Cycle Inspections

Motorcycle testers are reminded that the current licence conditions require a hoist or workstand to elevate and support the bike during examination.

Seminars for 2002

A number of LVT seminars are again proposed for this year. While these seminars are run by VicRoads they are organized and co-ordinated by the IAME. They provide an excellent opportunity to meet and chat about various issues and ideas related to roadworthiness inspections.

Don't hesitate to accept when the IAME sends you an invitation for the seminar in your area.



A very successful seminar was run in Echuca in April the proposed dates for the other seminars this year are:

25th June 2002	-	Euroa
9th July 2002	-	Portland
10th July 2002	-	Ararat
16th October 2002	-	Ballarat
12th November 2002	-	Geelong

Fees

Annual renewal of your licence is \$15.50.

A new licence, or if you change the location of your testing premises, or to add additional premises onto your licence, costs \$78.00 per site.

A book of 100 Roadworthiness Certificates now costs \$118.00 (including GST)

Note:

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