

NEW LVVTA TRAINING OFFICER ROLE ESTABLISHED

Introduction:

In a move to improve its technical support and training to LVV Certifiers, LVVTA introduced a new role within its staffing structure earlier this year of 'Training Officer', and appointed Ken McAdam to the position. The principle function of the Training Officer is to provide a direct one-on-one training and mentoring support role to the LVV Certifiers, in an ongoing effort to optimize consistency and general inspection quality across all LVV Certifiers throughout New Zealand.



Background:

During the past four years, LVVTA has – with the support and assistance of the New Zealand Transport Agency - been able to encourage a small number of LVV Certifiers who have continually presented a high level of risk to road safety as a result of their lack of knowledge and poor decisions to cease their involvement in LVV certification, either voluntarily or by force through NZTA's revocation of their authorities. This reduction of safety risk represents a significant improvement to the LVV certification system.

However, as LVV Certifiers will be aware from discussions during LVVTA training sessions over the past two years, the LVV system will be all-the-better for the long-term future if we continue to make improvements and raise the consistency across all LVV Certifiers throughout New Zealand. It is the desire for this improvement in consistency across LVV Certifiers that has led to the establishment of this new role within LVVTA.

The form-set review process:

LVVTA has been of the view for some time that the LVVTA form-set review process (or desk-top auditing process) has been very helpful in improving consistency between LVV Certifiers, and improving the overall quality of LVV certification inspections, but that there needs to be something additional or different put in place to further improve the consistency between LVV Certifiers by a few more notches. This isn't a criticism of any of the LVV Certifiers or of their knowledge or competence, but rather, a reflection of the massive level of complexity and diversity associated with LVV certification, and the difficult position that LVV Certifiers are constantly being placed in by having to be an expert in so many areas, each of those many areas being more than a trade or profession in itself.

The form-set review process, has been an extremely effective tool for measuring LVV Certifier performance, and providing a platform from which to assist with coaching and training. However, the form-set review process needs to be supported by something else.

Better support for LVV Certifiers:

During 2013 and 2014, a lot of thought has gone into how LVVTA can do a better job of supporting the LVV Certifiers, and the predominant view has been that LVVTA needs to be more pro-active by applying resources at the start of the process, rather than just putting resources into resolving problems after they've already occurred (ie looking at decisions after they've already been made via the form-set review process).

There is a reasonable train of thought that likens LVV certification to a medical condition; - that an infection is like a bad certification decision. The infection is already there, and it requires antibiotics to prevent the infection from escalating and resulting in amputation or worse, just as the bad decision is already there and is now relying on the form-set review process to prevent an unsafe vehicle from going on the road and potentially causing injury or worse. Like the infection, the bad decision has already happened, and the ideal situation is of course to prevent the infection from occurring in the first place by inoculation, or building up fitness, or taking health supplements.

Similarly, in LVV certification we need to prevent the incorrect decisions from happening in the first place, and much of the thought that has been applied to this whole consistency question by LVVTA staff and LVV Certifiers around the country during the past couple of years has resulted in the view that the best 'inoculation' to prevent bad decisions from occurring is training. Training; coaching; mentoring; guidance; - call it what you will – but the idea is simply that, as well as applying resources at the form-set review end of the LVV certification process, resources should also be applied at the start of the LVV certification process by helping the LVV Certifiers to understand the requirements, learn good inspection techniques, learn about the techniques that other LVV Certifiers do well, be cautioned about the tricks of the trade that could come back and bite, and above all – carry out the best possible inspection and be as consistent with the rest of the LVV Certifiers as can possibly be hoped for. (Cont'd on Page 2)

CURRENT PROJECTS & PRIORITIES

New LVVTA Training Officer Role Established (Cont'd)

(Cont'd from Page 1) The 'trainer' would, in effect, become a 'moderator'. His brief is to go around all of the LVV Certifiers, watching them carry out their inspections (not in a staged way where there could be consequences for a poor performance but in a spirit of 'be-honest-with-me-and-I'll-help-you-all-I-can' kind of way) to learn who is doing what, and to develop a picture of the best inspection processes and ideas. Then, during a second 'tour of duty', help the LVV Certifiers to inspect at the right level. Not too long, not too short; not too tough, not too soft. 'Here's a trick that so-and-so uses to establish speedo accuracy'. 'Be careful not to fall into the trap of adapting this intermediate shaft to this steering box'. 'This is the correct interpretation of that requirement'. And so on.

There will be no scores, no points, no penalties. Just help, and critically, help from someone who has at least an equivalent level of knowledge and skill as an experienced LVV Certifier.

LVV Certifiers, by the nature of their work, and the small number of LVV Certifiers around the country, are constantly in the unenviable position of having to work in isolation, and shoulder considerable burden about very complex safety-related decisions every day of their working lives. One of the intentions behind the introduction of the 'trainer' is to help the LVV Certifiers to share the load to some small extent, and gain confidence that their LVV certification decisions are consistent with those decisions being made by other LVV Certifiers.

Discussion with LVV Certifiers:

At the last round of LVV Certifier training in November 2014, LVVTA presented this idea to all of the LVV Certifiers around the country. With the exception of one group (who weren't opposed to it, but were more 'luke-warm' than positive) everyone was very supportive of the concept. With the LVV Certifiers firmly on-board with the idea, LVVTA has continued down the track of developing the details of the concept, grabbed the right man for the job with both hands while he was available, and put the new role in place.

Establishment of role:

The guiding principle of the role is simply to provide whatever help and support to the LVV Certifiers on a face-to-face one-on-one basis as necessary in order to help all LVV Certifiers to be carrying out top quality LVV certification inspections. This can include targeted training in specific areas if an LVV Certifier is struggling or feels out of his depth in a certain modification type, or where shortfalls in knowledge or skills are identified by the LVVTA form-set review process.

The role will also involve looking after associated duties such as conducting initial 'LVV Entry Assessment Examinations', and 'Basic Training' and 'Mentoring' for new LVV Certifiers coming on board, along with 'Competence Re-assessments' and 'mentoring' where needed for existing LVV Certifiers.

The trainer will also provide an interface between the LVV Certifiers and the LVVTA office, through learning what the LVV Certifiers' needs and concerns are on the front-line end of the LVV certification system, and looking at whether anything can be improved or changed at the LVVTA office end of the LVV system to accommodate those needs or address those concerns.

The role is initially a part time position, based on 20 hours a week. This is partly because of income constraints, and partly because a part-time role suits the right man for the job.

The right man for the job:

The key to making this new position work well is that the person in the role must have the right background. As mentioned earlier, the person doing this job must have at least an equivalent level of knowledge and skill as an experienced LVV Certifier, and that can only mean that the person has to be, or have been, an LVV Certifier. This guiding principle quickly narrowed down the search, and luck was on LVVTA's side in regard to timing.

Ken McAdam is a Wellington-based LVV Certifier, with considerable experience in both LVV certification and entry compliance, and has also had involvement in the management of LVVTA over many years. Ken has a good insight into all aspects of the LVV system, and can certainly see the day-to-day front-line challenges from the LVV Certifiers' perspective.

Best to let Ken introduce himself:

"For those of you that don't know me, I have been an LVV certifier for 15 years, managed a busy compliance workshop for the last 21 years, spent time as MTA branch president, vice president, and branch committee for 12 years, and also carried out WOF training in the Wellington area.

In a bid to remove some stress I have left my job and taken on the challenge of working part time for LVVTA to assist in getting an even playing-field for all certifiers, and to get consistent certification outcomes around the country. To achieve this I will spend some time with all LVV Certifiers to find out what is working well, what areas are causing problems, and then looking at what can be changed or implemented to improve the way we work.

As an LVV Certifier I know first-hand, and hear from others, some of the issues we all have to deal with out at the work-face, and by spending time with other LVV Certifiers and the team at the LVVTA office I hope to overcome some of these hurdles."

Ken will continue to operate as an LVV Certifier in the Wellington region. While it would be easy to flag up the old 'conflict of interest' phrase, the advantages of having been, and continuing to be, an LVV Certifier in this role far outweigh any disadvantages, and any (real or perceived) conflicts of interest can and will be managed by LVVTA.

In summary:

It is generally recognized that LVV certification is the most complex and diverse of all of the vehicle certification regimes in place. LVVTA sees this as a positive step for the LVV certification system, and for the LVV Certifiers, by helping them to feel less as though they are working 'in isolation', and that practical one-on-one assistance is available if needed.



CURRENT PROJECTS & PRIORITIES (cont'd)

LVVTA Priority Being Applied to 'Series-production' Modified Vehicles

Priority required for 'series-production' vehicles:

In recent years - and it's likely the trend will continue into the future - there have been a number of vehicles which have been modified for different purposes on a small production-run or 'series-production' basis. By 'series-production', we mean a series of vehicles all modified in the same way, by the same company. Some of these 'series-production' vehicles have been modified here in New Zealand, and some have been imported from overseas already modified. Many of these vehicles have been modified for the purpose of transporting people with disabilities, and these modifications can often be very complex.

LVVTA has, in recent years, identified a lot of technical and engineering problems associated with the modification of some of these 'series-production' low volume vehicles, both modified domestically and internationally.

Vehicles such as this Kia Carnival are often modified on a low volume production basis, and often incorporate many engineering challenges.



It has become clear that LVVTA needs to apply a high level of priority to increasing its involvement in the assessment of these 'series-production' low volume vehicles, at a point in time *before* the LVV certification process commences. This way, technical support can be provided to the modifiers or importers in relation to New Zealand's legislative requirements, and in terms of what is and isn't good engineering practice. By becoming involved prior to the LVV certification process, the LVV Certifier who becomes responsible for the assessment and approval of the vehicles is not having to make very complex technical and engineering decisions - that could potentially flow through a large number of vehicles - in isolation.

Past focus on form-set reviewing:

For a long time, LVVTA technical staff have found themselves unable to become as involved in these engineering tasks as we had hoped, because their time in recent years has been monopolised by form-set reviewing and the associated coaching and correspondence work that becomes a consequence of the form-set reviewing function, along with providing a technical support role to everyone who needs it.

When LVVTA established the position within LVVTA for a formally-trained professional engineer six years ago, and brought in Dan Myers B.Eng M.Sc to fill that role, the form-set reviewing role was not part of the role that LVVTA originally intended for him. However necessity has dictated that this has had to be a key part of Dan's role during the six years that he has been with us, because there has, during that time, been a small number of LVV Certifiers who have not been making good certification decisions over the years, and who have consumed a disproportionate amount of LVVTA technical staff's time as they have either coached and mentored these LVV Certifiers to a point where their decisions have improved and

they no longer present a safety risk, or they have built a case against them to assist NZTA in the removal of the LVV Certifiers' certification authorities.

Reduced focus on form-set reviewing into the future:

Fortunately, these LVV Certifier decision problems are almost completely resolved now, and the LVV Certifiers in place throughout the country now - whilst they can and will benefit from the one-on-one coaching that the new LVVA Training Officer has been established to provide - are operating competently and diligently.

Focus on 'series-production' vehicles and modifications:

LVVTA's responsibilities and workload are continuously increasing and we are limited by our funding to just LVVTA's share of the LVV certification plate fee. We therefore have to prioritise our limited resources to those areas that present the greatest degree of risk, and at the moment there needs to be more focus on working proactively to help the modification industry with 'series-production' vehicles.

This 'series-production' workload is Dan's direct area of engineering expertise, and his high-level and urgent engineering-related to-do list is continually growing, including the assessment of a number of 'series-production' vehicles, which include complex technical and engineering challenges such as fly-by-wire joystick-type steering systems. Many of the modifications that LVVTA are seeing are both unique and innovative, so the assessment of these modifications can be both challenging and time-consuming.

In order to enable Dan to focus on this new priority, his time associated with form-set reviewing and providing general technical support to LVV Certifiers has to be reduced. Dan's reduced availability to support LVV Certifiers in his specialist areas including seating, seatbelt anchorages, electric vehicles, and disability transportation vehicles, is not an ideal situation, but priority must, at this time, be applied to the 'series-production' vehicle situation.

INFORMATION SHEET #01-2014 August 2014



Series-production Modification Pre-approval Process

Introduction:

There are a number of companies, both within New Zealand and in other countries, who carry out mechanical and structural modifications to vehicles on a 'series' basis, sometimes referred to as a 'low volume production run'. These modifications range from straight-forward and simple modifications to highly-complex re-engineering of vehicle structures and safety systems.

Examples include:

- raised roof 'pop-top' camper vans
- station wagons converted to utilities
- lowered floors for disability access
- stretched limousines
- right-hand drive steering conversions
- seat and seatbelt fit-outs
- hearse conversions.



LVVTA to be involved at outset:

Many of these conversions are very well executed by experienced companies who have the necessary expertise to perform such complex structural modifications, resulting in safe vehicles. If however a conversion is produced in numbers and has safety-related flaws, the consequences to road safety are multiplied by the number of vehicles modified, along with the time and effort required to rectify the issues on all affected vehicles.

With the ever-increasing complexity associated with modern motor vehicle design and construction, there is continually greater need to identify the risks involved with each volume modification process prior to the modification process taking place, and for LVVTA to provide technical support to the LVV Certifier before the certification process, so as to ensure that any issues are resolved back in the design phase of the work.

There have been problems in the past as a result of LVV Certifiers trying to deal with complex matters in isolation, and the objective of this pre-approval process is to ensure that LVV Certifiers are given technical support by LVVTA technical and engineering staff before the modifications occur. In the past, where LVVTA has been involved at the outset, problems have been avoided and safe outcomes have been achieved without costly and time-consuming rectification work.

Flow-chart to be followed and applied:

In order to enable this LVVTA support structure to occur, LVVTA requires LVV Certifiers to work with the modifier (or importer) to assess the risks and determine whether to involve LVVTA early on. The adjacent

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LVV Certifiers are reminded of LVVTA Information Sheet #01-2014 released in August 2014, which sets out the procedure for LVV Certifiers to follow when encountering a vehicle which is, or may become, a 'series-production' vehicle.

It is vitally-important that LVV Certifiers correctly identify a 'series-production' vehicle upon first client contact prior to the commencement of LVV certification, and apply this procedure.

AFTERMARKET ALERT

Failed Steering Column Support Bracket

Early in 2015, Auckland's Jeff Emerson was giving his beautiful new-built 1956 Chevy pickup its maiden 'quiet lap around the block' voyage, and suddenly ended up with his steering column sitting in his lap. The upper end of the steering column had suddenly become disengaged from its attachment point under the lower dashboard, due to a catastrophic failure of the steering column bracket - which is the clamping system used to attach the upper end of the column to the vehicle.

The column remained connected to the intermediate shaft, so Jeff was able to maintain directional control of his new pick-up and bring it safely to a halt, however maintaining control was probably as much about good luck as it was good management with the column's upper support system having completely failed.

The failed component was a brand new aluminium column bracket, or 'dropper' as it is known in the hobby, which had been purchased new by Jeff, directly from a well-known hot rod parts supplier in New Zealand who purchased the component via the internet.

Jeff sent the broken part to LVVTA, which was assessed by LVVTA's Engineer Dan Myers. It was agreed that the bracket was made via a casting process (rather than being machined from a solid piece of material as seems to be best industry practice), and the component had insufficient cross-sectional material to be fit for its intended purpose, and was poorly designed and manufactured, and unsafe. On that basis, the bracket was sent to METLAB Limited, a reputable and experienced metallurgist, who concurred with the opinion of LVVTA, and added that the quality of the casting material was very poor.

LVVTA would like to remind anyone selling automotive components that they have a legal obligation to ensure that any parts—particularly those which are safety-related — are well designed and manufactured, and are fit for their intended purpose. Any components which are not branded, particularly those purchased via the internet, should be treated with suspicion.

LVVTA also asks LVV Certifiers to pay particular attention to the inspection of any aftermarket column droppers that they see, via removal from the vehicle if necessary, to ensure that they aren't the same as the one pictured here (they are supplied unpainted), and if it is, reject the component as unfit for its purpose.

Vehicle builders and modifiers need to become very particular about where they source safety-critical components from, and stick to reputable brand-name components supplied by reputable parts sellers. People need to steer away from purchasing any safety critical parts that are unmarked, and not supported by proper documentation, particularly if sourced via the internet.



Metallurgist's Report

METLAB's report on the failed steering column bracket component included the following comments:

"A section of the fractured bracket was analysed by optical emission spectroscopy and further sections through the fracture were taken and prepared for metallography. The sections were mounted in a cold setting epoxy resin and once cured, were ground and polished to a 1 micro diamond finish. The sections were examined as polished on a metallurgical microscope before etching to reveal the structure was carried out using Kellers reagent for aluminium alloys.

The microstructure of the fractured bracket shows several casting defects including shrinkage porosity, gas porosity, dross, cold-shuts and splash. Furthermore the quantity of embrittling iron-rich needles present explain the high iron content from the chemistry.

The fractured steering bracket is a very poor quality casting. It has a small cross-section which has multiple casting defects present which act to seriously weaken the product.

Considering this is a bracket used to hold a steering column it is strongly advised that this product is recalled or prevented from going into the marketplace."

AFTERMARKET ALERT (cont'd)

Poor Thread Machining on Components

The LVVTA technical staff report that they're seeing some extremely poor-fitting threads on many aftermarket components commonly used in vehicle modification work, many of which are safety-critical items. Typical components include adjustable coil-over shock absorber assemblies, adjustable camber arms, and even hub-adaptors for knock-off wire wheels.

The threaded section is often very sloppy - in some cases ridiculously so - which is caused by nothing other than shockingly-poor manufacturing processes. Loose or sloppy threaded sections will strip at a lower torque value than a properly-toleranced threaded joint will, and also the movement that will continually occur with wear will eventually cause damage to the threaded sections.

LVV Certifiers should routinely slacken off threads to check for play, and ensure that these sub-standard components are not in use.

These Tyres are 'Junk'!

How's this for a compliance marking on a tyre side-wall?! 'DOT JUNK FAJ'! We don't know what that translates to in its country of origin, but we can be fairly confident that it's not a legitimate DOT approval number!



Poor Quality Wheel Adapters

Found on the internet, a warning was provided by an American auto parts store called 'Fred's E-Bay Store', who sells billet aluminium or magnesium wheel adapters.

The photograph below was giving the message that the wheel adapters were made in China, using a poor grade of aluminium, and made using a casting process. The result was that the adapters apparently failed under normal wear and tear. According to the information provided with the picture, the '176' cast into the adapter indicates that the units were manufactured in China.

There's no real moral to this particular story other than to be aware that there are a lot of components on the market that may not be fit for their intended purpose, and because of this, vehicle modifiers and LVV Certifiers alike really need to question everything they see, and take nothing for granted.



Counterfeit Full Harness Seatbelts (Part 2)

We were reminded recently that - as we uncover many examples of counterfeit parts in the modified vehicle world - the counterfeit parts problem isn't exclusive to this corner of the industry. Motorsport New Zealand have been grappling with similar problems, and they have recently established that counterfeit full harness seatbelts are alive and well, as shown on page 9 of LVVTA News Issue 50.

The pictures at right show one of a number of sets of counterfeit 'Takata' brand harnesses bought into New Zealand recently. There are a couple of telling features that will distinguish these from the genuine harness. The first telling feature is the location of the Homologation Label on both the shoulder straps. The FIA Standard states that this label must be attached within 20cm of the buckle tongue on each strap. That should put the label below where the strap adjuster is on the shoulder straps, but on this counterfeit Takata harness, the label is well above the strap adjuster.

The second give-away is the actual homologation label itself. Takata say they use a green ribbon with black printing on it. The labels on this counterfeit set are white and silver, and have been printed green on one side and then had the markings printed on. There should also be a holographic sticker (which was introduced in January 2013) and so there should have been one on this set of harnesses, however there's no holographic sticker to be seen.

Look closely at the label at right, and you can see (by looking at the reverse side of the label) that the label is actually made from white or silver ribbon, and not green ribbon as the Takata labels are. This indicates a fake belt.



TECHNICAL STUFF

Drive-shafts - What Could Possibly Go Wrong? (Part 3)

The driveshaft failures that have been shown in the last two issues of LVVTA News have prompted people to let us know about other recent drive-shaft 'events'. Ponder these latest ones, and if you still think that there's no inherent danger with a flailing driveshaft after this third instalment, you're probably also a member of the Flat Earth Society...

The drive-shaft picture below was attached to a Fraser Clubman, fitted with a turbo-charged 4AGZE engine making around 400hp, with a 6 speed sequential box with a tall 1st gear, and runs wider tyres with slicks fitted for the drag strip. All Fraser's are factory-fitted with two drive-shaft safety hoops; - one at the front of the driveshaft and one at the rear. The front hoop remained in place but the rear hoop failed, however this failure happened in the most extreme of scenarios; - a 5500 rpm launch on sticky drag slicks. Scott Tristram of Fraser Cars thinks that the drive shaft has bowed in the middle and pulled the slip yoke out of the gear box (as it can't pull the diff end forward) which has resulted in the front hoop becoming ineffective and breaking the rear hoop.

This is certainly an unusual series of circumstances, and it should be noted that the factory Fraser system has successfully withstood other driveshaft failures in the past. However, the need is highlighted again for drive-shafts and their loops to always be man enough for the job.



The driver of the vehicle was injured (photo at left) by the flailing drive-shaft as the car rolled to a stop. If this is the result of an 'off-the-start-line' low-speed failure, imagine the catastrophic consequences of a similar failure at high speed, and the effects of the time taken to get the vehicle halted.

So; - a few reminders to make sure your vehicle, or the vehicle you certify, doesn't suffer the same consequences as those two pictured here, and the ones in the last two issues of LVVTA News:

Drive-shaft suitability:

When assessing a vehicle for added power, such as with a large turbo, an LVV Certifier should consider the suitability of the driveshaft. Paragraph 9.17.1 of the Hobby Car Technical Manual requires that:

A drive-shaft fitted to a low volume vehicle must be manufactured from tubing of a:

- material specification appropriate for a driveshaft; and*
- diameter and wall thickness appropriate for the power, torque, and weight of the vehicle.*

Drive-shaft loops:

Remember that there must be two driveshaft loops fitted (one positioned at the front and one at the rear of the shaft) on a vehicle which has a brake line adjacent to the driveshaft.

The requirement is in the LVV Braking Systems standard 2.3(19) and also in the HCTM (8.7.4), as follows:

A hydraulic brake pipe which is mounted adjacent to any drive-shafts in a low volume vehicle that has been modified in such a way as to substantially increase power output, must either:

- be re-directed away from the vicinity of the drive-shaft; or*
- be protected from a drive-shaft failure by a 360-degree safety loop at each end of the drive-shaft, positioned within 150 mm (6") of each drive-shaft universal.*

Fortunately, this driveshaft failure - fitted to a Christchurch-based LS1-powered 1955 Chevy - occurred on a dyno. At the equivalent of about 210km/h during the dyno pull, the driveshaft failed, ending up in three pieces. The owner described the failure as "...lots of munted bits underneath, more than you can see, custom made handbrake brackets, both mufflers beat up, front of the diff will need a new yoke/fitting, lucky that brake line shown was up higher and ok. Went with a big bang..."

Luckily the front driveshaft loop did it's job of protecting the front of the floor, but it's easy to see here the huge forces these things contain when they do fly to bits. It's unclear as to why the shaft broke, but we understand that the tube may have been inadequate in size, and it may be that a small dent or damage from a hand-brake component running on the shaft may have contributed to the failure by creating a weak point in the shaft.



PROCEDURAL STUFF

May 2015 Training Date Reminder

Dates for the first series of regional LVV Certifier training sessions for 2015 have been set, which are as follows:

- Tuesday May 19 Wellington
- Wednesday May 20 Wanganui
- Thursday May 21 Rotorua
- Friday May 22 Auckland
- Wednesday June 3 Christchurch
- Thursday June 4 Dunedin

All venues are as previously advised to LVV Certifiers, other than the venue for the Dunedin session, which is still to be confirmed, and those affected LVV Certifiers will be advised.

As usual, if anyone requires any further information in relation to the venues or times, please feel free to contact Linda Washington on linda@lvvta.org.nz.

Bring Your Certification Manuals to Training!

A reminder to all LVV Certifiers; - please bring all of your LVV Certification Manuals with you to the May training sessions. LVVTA staff will be updating your manuals for you, and will require all of your LVV Certification Manuals in order to be able to do so.

Raised Vehicle Workshop in August

The two-day workshop on raised vehicles - primarily focussed on 4WD vehicles with raised suspension, body lifts, and larger tyres - which was scheduled for mid-2014, is to take place on 12 and 13 of August 2015. The primary intention of the workshop is to get a group of industry experts in this field together, and begin the development of best practice standards to ensure the safety and stability of these vehicles. If anyone is interested in being involved in this, and haven't already forwarded an expression of interest, they should email Ken McAdam at ken@lvvta.org.nz.

Customer Copy Rectification Forms

During some random auditing of LVV certification documentation at the LVVTA office recently, it was noted that there were a number of form-sets submitted by LVV Certifiers with either no Rectification Sheet included, or both copies of the Rectification Sheet (which indicates that the customer was not given their copy). As the Rectification Sheet contains information on the time-frame in which the customer has to put things right, as well as the complaints procedure, it is important that this sheet is given to the customer in every case, even if there are no faults to be rectified.

Design Approval Application Timing

LVV Certifiers are reminded to ensure that Design Approval applications for clients' vehicles do not accompany LVV certification plate applications. The Design Approval process must be completed well before the LVV certification inspection is undertaken.

Checking Wheel to Tyre Relationship

Shown to the right is one way for an LVV Certifier to establish that he's checked that the vehicle's wheel and tyre relationship is correct. East Auckland's Dave Page has copies of LVV Information Sheet 01-2009 handy when he carries out his LVV certification inspections, and he simply marks the relevant place as he refers to it on the Information Sheet for confirmation. This makes it easy for everyone involved to be confident that an LVV Certifier has done his job well, especially when LVVTA technical staff see what are clearly 'stretched' tyres during a form-set review. Good idea Dave!

18 Inch - Passenger Car	
Tyre size	Rim width (inch)
205/40R18	7.0 - 8.0
205/55R18	5.5 - 7.5
215/35R18	7.0 - 8.5
215/40R18	7.0 - 8.5
215/45R18	7.0 - 8.0
225/35R18	7.5 - 9.0
225/40R18	7.5 - 9.0
225/45R18	7.0 - 8.5
225/50R18	6.0 - 8.0
235/40R18	8.0 - 9.5
235/45R18	7.5 - 9.0
235/50R18	6.5 - 8.5
245/40R18	8.0 - 9.5
245/45R18	7.5 - 9.0
245/55R18	7.0 - 8.5
255/30R18	8.5 - 9.5
255/35R18	8.5 - 10.0
255/40R18	8.0 - 10.5
255/70R18	6.5 - 8.5
265/35R18	8.5 - 10.5
265/55R18	7.5 - 9.5
275/35R18	9.0 - 11.0
285/30R18	9.5 - 10.5
285/55R18	8.0 - 10.0
295/35R18	10.0 - 11.5
305/60R18	8.5 - 11.0
315/30R18	10.5 - 12.5
325/30R18	11.0 - 13.0
335/30R18	11.0 - 13.0
345/35R18	11.5 - 13.5

Reminder on VIN Photo from Frances

LVV Certifiers, please make sure you include a clear photo of the VIN or Chassis number with each certification. I quite often find a difference between what is written on the F001 and what is recorded in Landata. If there is a good clear photo, I can often solve the problem without hassling you! Also, I'm often finding the transmission information, engine rating, and engine configuration boxes on the F002 blank - as you know this information is pretty important so please double-check before you send your paperwork in that this is fully-completed. Thanks!

Incorrect NZTA VIN-Plates

LVVTA has recently had clarification from NZTA that the NZTA VIN plate is only meant to be stamped with a 17 digit VIN, not any other identifier. The two photographs below show incorrect VIN plates, each with a chassis number stamped on the plate instead of a VIN.

In exceptional circumstances NZTA may allow an identifier that is not 17 digits, but this would be prefixed with 'NZTA'. Any vehicle with an incorrect VIN plate should be presented to an NZTA VIN agent for a new 17-digit VIN tag to be applied before it can be LVV certified.



COMINGS AND GOINGS

Auckland-region LVV Certifier Numbers Back up to Strength

Auckland-region LVV Certifier numbers are now back up to full strength, after a period of an insufficient quantity of LVV Certifiers operating within the region.

Auckland LVV Certifier numbers had reduced during the period 2011 to 2014, when four Auckland-based LVV Certifiers either resigned or had their certification authority revoked by the New Zealand Transport Agency for making poor certification decisions. It was initially thought that the remaining Auckland-area LVV Certifiers could provide an efficient service without the introduction of additional LVV Certifiers to replace any of those four who had moved on. However, the additional workload became too much for the remaining LVV Certifiers in the Auckland region, and this problem was compounded when, late in 2014, a six month suspension was imposed on another Auckland-based LVV Certifier.

It had become evident that there was a need for additional LVV Certifiers in the Auckland area during early 2014, and as a result two new LVV Certifiers were identified, assessed, trained, mentored, and appointed during mid to late 2014. Dave Page and Mike Owen are now authorised LVV Certifiers, both based in the South-East Auckland region.

Existing LVV Certifier Clint Field has now been authorised for LV1D (heavily modified and scratch-built vehicles), and Mark Stokes is now back in operation as an LVV Certifier, as of April.

During the first part of 2015, two additional LVV Certifiers have been identified, assessed, trained, mentored, and appointed. Both of these new LVV Certifiers, Paul Urquhart, and Scott Tristram, will be in operation by the second week of May. Paul and Scott are based on Auckland's North Shore, which is where the biggest LVV Certifier shortage has existed.

Welcome Scott Tristram!

North Shore-based Scott Tristram is the owner of Fraser Cars, and for his young age, has a huge amount of experience in building and modifying a vast range of modified vehicles. His knowledge of, and involvement in, motor-sport, including circuit racing and tarmac rallying, will be of great benefit to the LVV system.

LVVTA thanks the New Zealand Transport Agency's Gary Hollingsworth and Bruce Pacey for their assistance in the assessment and appointment of Scott, along with Christchurch LVV Certifier Don Hoff for mentoring.



Welcome Paul Urquhart!

North Shore-based Paul Urquhart is the owner of North Shore Compliance, and brings vast knowledge of the used entry compliance process to his role as an LVV Certifier. Paul has a lifetime of building and modifying cars, and owns a collection of interesting vehicles, including an XA Falcon Coupe that he races in Central Muscle Cars.

LVVTA thanks the New Zealand Transport Agency's Gary Hollingsworth and Bruce Pacey for their assistance in the assessment and appointment of Paul, along with Christchurch LVV Certifier Don Hoff for mentoring.



Whilst the shortage of LVV Certifiers has caused some inconvenience, it has been part of a bigger process that has brought about a substantial improvement in the quality of LVV certification work within the Auckland region, because of the high calibre of LVV Certifiers now operating in the area.

By mid-2015, all of the Auckland-area LVV Certifiers will be operating at the same high level, and any past problems of inconsistency between inspection quality of LVV Certifiers within the Auckland region will be remedied.

Auckland Region LVV Certifier Contacts:

Alex Gee	1A, 2A, 2B, 2C, EX	027 264-7282
Clint Field	1A, 1B, 1C, 1D, 2A, 3A, RH, EX	027 452-2049
Dave Page	1A, 1B, 3A, EX	027 492-3570
Lance Walsh	1A, 1B, 1C, 1D, RH, EX	027 268-2467
Mark Stokes	1A, 1B, 1C, 1D, 2A, 3A, RH, EX	0274 522276
Mike Owen	1A, EX	09 534-8604
Thomas Breinhorst	1B, 1C, 3A	021 222-9661
Paul Urquhart	1A, 1B, EX	021 990-035
Scott Tristram	1A, 1B, EX	021 995-334

For details of the modification and vehicle types covered by each category, go to www.lvvtanews.org.nz, then 'Support' (top drop-down menu), then 'Find an LVV Certifier', and then 'Certifier Categories'.

FROM THE INTERNET!

Tow-bar Connection Systems

No tow-ball? No problem. You've still got the tow-ball receiver there, right? And you can buy a D-shackle from Walmart for about two bucks, right? There ya go - that's way cheaper than buying one of those expensive tow-ball mount assemblies...



Or, you've just got the receiver shaft section, but no actual tow-bar structure. That's ok too. We can sort that out. We might just burn a little bit of paint on your boot floor though - is that alright?



Be careful though, when you're building your tow-bar frame. You don't want to damage your good ol' boy NRA sticker. Telling everyone you need to 'protect and defend the right to keep and bear arms' takes precedence over everything else, right?



Other Great Ideas!

So here's an idea... You have a steering box and you have a steering column, and you need to somehow connect the two together. You're on a bit of a budget, but what the heck - it's only steering... All you need is a piece of galvanised water pipe, a couple of threaded unions, and some grub screws. What could possibly go wrong?



Axle-tramp problems at the drag strip? No problem, no siree... Just find a couple of bits of angle iron, some nuts and bolts that don't fit, and hey presto - a set of anti-tramp rods! Perfect!



People go to so much trouble tying a car onto a transporter, don't they?! Why reach in underneath the car? You might get dirt on your sleeves. All you need to do is grab one ratchet tie-down, and...



Australian Auto Aftermarket Expo 2015

In LVVTA News # 48 we covered the topic of setting requirements for raised four wheel drive vehicles, especially around vehicle stability. During August 2015, LVVTA is holding a workshop that will bring together a group of experts with the aim of establishing the key technical aspects for certification of all of the typical modifications made to these vehicles.

As part of the preparation for the workshop, LVVTA staff members Dan Myers and Ken McAdam visited the Australian Auto Aftermarket Expo in Melbourne during April 2015 to gather information from the (very large) four wheel drive industry in Australia.



Some important work has been done by the Australian Auto Aftermarket Association (AAAA) around the effect of suspension modification on vehicles with electronic stability control, and this will be of value to us as we work with the NZTA on implementing requirements for modern modified vehicles with this system fitted.

A lot of information was gained, and some very good contacts were established who were more than willing to share their knowledge.

One final lesson learned by Dan and Ken at the Aftermarket Expo was that crocodiles make the basis of a pretty good burger patty, that tastes pretty much like chicken.

The Last Word in C-notches!

This photo, taken at a car event in the USA, shows a chassis on display that had apparently been built by one of the 'big-name' American hot rod construction shops. While the finish of the fabrication work clearly looked beautiful, many eyebrows of experienced car builders were raised at the extent of the rear chassis 'C-notch'!

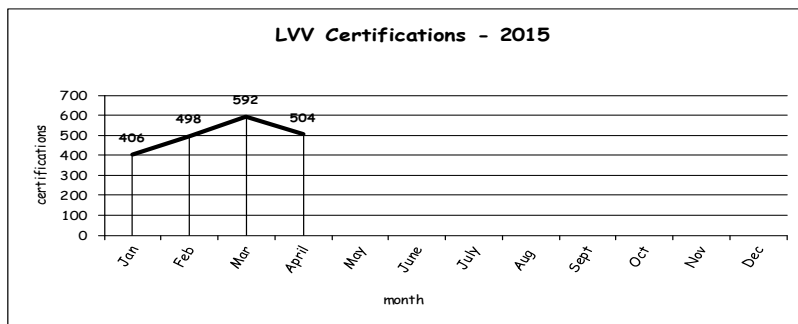


The Last Word in Driveshaft Modifications!

This sent to us by Steve Hildred of New Plymouth; - we don't know where this work of art came from (yes, it's timber!), but one thing we can be sure of is that it's not a Steve Hildred Motors modification!



LVV Certification Numbers for 2015



2015 has started out a little slower compared to previous years, down slightly with a per-month average figure of exactly 500 certifications per month for the period January 2015 to April 2015 inclusive, compared to 514 certifications for the first four months of 2014.

One of the big unknowns is how the change to WoF frequency under the Vehicle License Reform will affect LVV certification numbers. There is every possibility that the VLR project could throw up unusual numbers for this year and into 2016. Only time will give us the answer to that.